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INBREEDING.

In Theory and Practice — An Exposition of Some Popular Fallacies.

Those who condemn inbreeding, the mating together of individuals near akin, do so on the alleged ground that the general experience of breeders is that breeding related animals or birds causes deterioration in constitutional vigor and in fecundity to begin at once, and that the practice, if continued in, would exhaust a stock in a very few generations. In support of this general proposition there have been cited a few—and a very few — experiments made to determine the effects of inbreeding, in which experiments deterioration was quickly noticeable; and a great many observations of authorities on breeding questions.

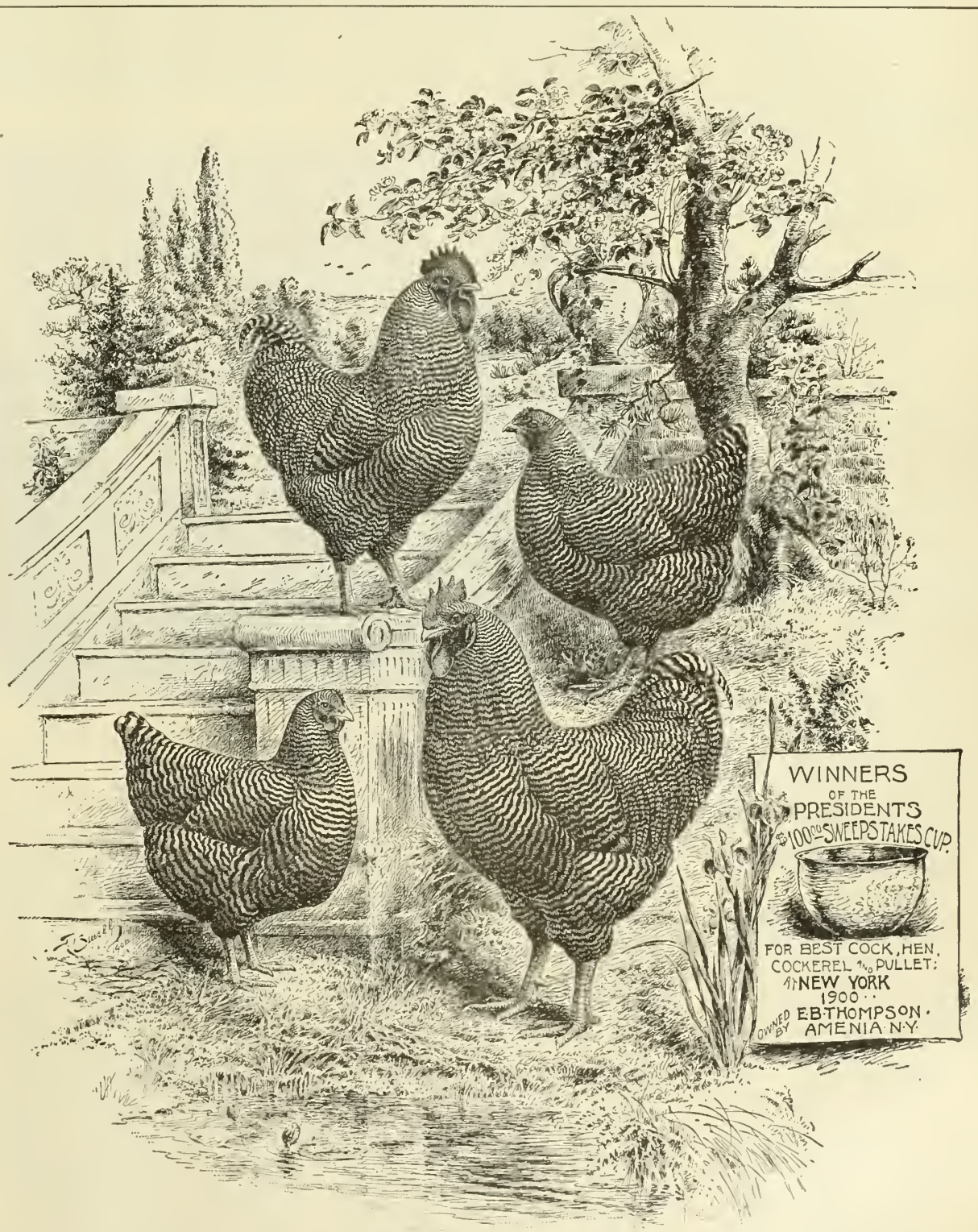
As an illustration of the kind of evidence on which inbreeding has been condemned, I quote some of the examples given in Mr. Alfred Russell Wallace's "Darwinism." "Mr. Low, in his great work on 'The Domesticated Animals of Great Britain,' says: 'If we shall breed a pair of dogs from the same litter, and unite again the offspring of this pair, we shall produce a feeble race of creatures; and the process being repeated for one or two generations more, the family will die out, or be incapable of propagating their race. A gentleman of Scotland made the experiment on a large scale with certain foxhounds, and he found that the race actually became monstrous, and perished utterly.' The same writer tells us that dogs have been made the subjects of similar experiments: 'After a few generations the victims manifest the change induced in the system. They become of diminished size; the proportions are changed into hairs; the limbs become feeble and short; the litters diminish in frequency, and in the number of the young produced; the mother becomes unable to nourish them, and, if the experiment be carried as far as the case will allow, the feeble and frequently monstrous offspring will be incapable of being reared up, and the miserable race will utterly perish.'"

Such statements, on such high authority carry weight, and on their face make out a very strong case against inbreeding. But there is no authority so high that its statements are to be accepted without question or analysis, and when we begin to look into these and others like them, the closer we scrutinize them and the deeper we go the less confidence we have in them.

To make it appear that bad results accompanying inbreeding must be the result of it, it must be shown that they cannot be due to anything else, or at the least that it is improbable that they should have been produced by any other cause. It must also be shown that with the same general care and conditions, stock which is not inbred does not deteriorate. In addition to this it should be shown that in an experiment in inbreeding where deterioration was pronounced and rapid the original stock was vigorous and strong, and in every way good breeding stock when otherwise mated, and that in each generation the most vigorous individuals were used in the experiment. In none of the reports of experiments which seemed to indicate bad effects from inbreeding that I have seen recorded, are points like these set forth clearly enough to have any convincing effect on a skeptical mind. In fact, in most of them, the points are not treated in detail at all. The talk against inbreeding abounds in *glittering generalities.*

The authority for the examples quoted, and many modern authorities claim that where inbreeding is practiced physical degeneracy at once begins. They give examples of cases in which this happened, which they seem to think settle the point emphatically, and many of the poultry writers who oppose inbreeding always write as if this phase of the subject were not open to controversy. To tell the truth, I think that even among poultrymen who believe in and practice inbreeding to secure color points the general opinion is, that while inbreeding improves color and enables them to fix color points, it is at the loss of something in shape and constitution. There is no doubt whatever that these results do very often accompany inbreeding, but to prove that inbreeding is the cause of them, it must be shown either that there could be no other cause or that they always follow inbreeding.

In such cases as poultrymen opposing inbreeding may cite in support of their position and also in such cases as those quoted, it is impossible to get a full statement of all conditions and to determine definitely what caused deterioration. But we are not forced to allow the case for inbreeding to stand or fall with our ability to disprove in each case by the facts in that case that degeneracy resulted from inbreeding. If there can be found cases of degeneracy without inbreeding, they will show that there must be some other cause or causes for it. We do find such cases—very numerous, too, and as a rule we find that the



WINNERS OF BARRED PLYMOUTH ROCK SWEEPSTAKES AT NEW YORK SHOW, 1900.
At the show of the New York Poultry Association, in Madison Square Garden, Jan. 30—Feb. 3, 1900, these four birds of the "Ringlet" strain, owned and exhibited by Mr. E. B. Thompson, Amenia, N. Y., won the coveted sweepstakes, "President's Cup," valued at $100, for best cock, hen, cockerel and pullet.

most common cause of deterioration in poultry stocks is the breeding from fowls unfit, either because of lack of development or lack of condition to reproduce their kind in the full development of its standard type.

Further we may find very numerous instances of inbred stocks not deteriorating for many generations, and find that though these may be overlooked by writers opposing the inbreeding of poultry, they are not overlooked by such scientists as Wallace when seeking to learn the truth of a matter. Writing to this point he says: "It has, however, been denied by Mr. A. H. Huth, in his interesting work on 'The Marriage of Near Kin,' that any amount of breeding in-and-in is in itself hurtful; and he quotes the evidence of numerous breeders whose choicest stocks have always been so bred, as well as cases like the Porto Santo rabbits, the goats of Juan Fernandez, and other cases in which animals allowed to run wild have increased prodigiously and continued in perfect health and vigor, although all derived from a single pair."

Now note carefully what follows.

"But in all these cases there has been rigid selection by which the weak or the infertile have been eliminated, and with such selection there is no doubt that the ill effects of close interbreeding can be prevented for a long time; but this by no means proves that no ill effects are produced. Mr. Huth himself quotes M. Allie, M. Aube, Stephens, Giblett, Sir John Sebright, Youatt, Druce, Lord Weston, and other eminent breeders, as finding from experience that close interbreeding *does* produce bad effects, and it cannot be supposed that there would be such a consensus of opinion on this point if the evil were altogether imaginary. * * * On the whole, the evidence at our command proves that whatever may be its ultimate cause, close interbreeding *does* usually produce bad results; and it is only by the most rigid selection, whether natural or artificial, that the danger can be altogether obviated."

I want to pause here to make some comments on Mr. Wallace's conclusion, and to point out the weak point in the testimony of one of those eminent breeders named, when that testimony is taken as proof that close interbreeding does produce bad effects.

In the poultry world Sir John Sebright is known to fame as the originator of the Sebright bantams which take their name from him. A peculiarity of this breed is that the cocks are "hen feathered," this, of course, being most conspicuous in the tail. These hen feathered males, as is usual with males deficient in male characteristics lack sexual vigor, and it is notorious that the best standard hen feathered males are often impotent, or nearly so, and that to preserve the stock it is necessary to make frequent use of males possessing sex characteristics in more marked degree.

Viewed in the right light the case of the Sebright bantam comes out strong for inbreeding, for the Sebright bantams of today are living illustrations of the fact that a considerable degree of vigor may be maintained for a very long time even when inbreeding is persisted in with the most nearly impotent males that will produce stock at all.

If we had all the facts before us, we should probably find that few of the eminent breeders who say that in their experience inbreeding has produced bad results have not when inbreeding used specimens lacking in size, vigor, shape, or other substantial quality, merely because they excelled in some superficial feature. Deterioration attends the use of such specimens whether they be bred with near kin or with unrelated individuals; and such being the case, we have a right to say that the breeders who, on such grounds, insist that inbreeding produces deterioration are probably mistaken.

Taking Mr. Wallace's different statements of the case together, I think, too, that we may fairly criticise his use of the word "produce." The facts and some of Mr. Wallace's statements go together to show that the proper word to use here is "accompany," and his conclusion should read, "the evidence at our command proves that whatever may be its ultimate cause, close interbreeding is usually *accompanied* by bad results." This would be literally true, and would not be in a measure contradictory of the closing phrase, "it is only by the most rigid selection * * * that the danger can be altogether obviated." It must be clear to anyone who gives the subject a moment's thought that if the bad results specified are produced *by inbreeding*, they could not be avoided altogether when inbreeding was regularly practiced. If *inbreeding* is a cause of deterioration and degeneracy, selection might prevent ill effects, as Mr. Wallace says "for a long time," but they would be sure to come. If by selection "the danger can be altogether obviated," then there is no getting away from the conclusion that inbreeding is not itself a cause of physical degeneracy.

This is the conclusion at which Mr. Wallace himself arrives in a later chapter of the same work when after a discussion of the subject of intercrossing he says: "Just as we have seen that intercrossing is not necessarily good, we shall be forced to admit that close interbreeding is not necessarily bad. Our finest breeds of domestic animals have been thus produced, and by a careful statistical inquiry Mr. George Darwin has shown that the most constant and long continued intermarriages among the British aristocracy have produced no prejudicial results. The rabbits of Porto Santo are all the produce of a single female; they have lived on the same island for 470 years, and they still abound there, and appear to be vigorous and healthy.

"We have, however, on the other hand, overwhelming evidence that in many cases, among our domestic animals and cultivated plants, close interbreeding does produce" (?) "bad results, and the apparent contradiction may perhaps be explained on the same general principles and under similar limitations, as were found to be necessary in defining the value of intercrossing. *It appears* probable then, that it is not interbreeding in itself that is hurtful, but interbreeding without rigid selection or some change of conditions. Under nature, as in the case of the Porto Santo rabbits, the rapid increase of these animals would in a very few years stock the island with a full population, and thereafter natural selection would act powerfully in the preservation only of the healthiest and the most fertile, and under these conditions no deterioration would occur. Among the aristocracy, there has been a constant selection of beauty, which is generally synonymous with health, while any constitutional infertility has led to the extinction of the family. With domestic animals, the selection is neither severe enough, nor of the right kind. There is no natural struggle for existence, but certain points of form and color characteristic of the breed are considered essential, and thus the most vigorous or the most fertile are not always those that are selected to continue the stock."

Until those who condemn inbreeding can explain away the facts and the logic of such arguments from such authority, it is "up to" them to be very cautious in their generalizations. For myself, after a somewhat thorough study of the matter, and considerable experiment both in inbreeding and in avoiding it, I find myself unable to comprehend how anyone who investigates the question thoroughly, can be at all positive in condemnation of inbreeding.

If space permitted I would like to give in this connection a quite full account of my experiences with the different methods, but as I want to give some quotations from a contemporary journal bearing on this subject, I will merely say at this time that all my experience goes to confirm the view that, whatever be the breeder's object, whether feathers, shape, eggs, meat or what, proper and rigid selection is the key to success, and that with this the degree of relationship existing between the specimens which it is desired to mate may be utterly disregarded. In making so broad an assertion I do not overlook the very obvious fact that most amateur breeders are not in a position to use stock of their own breeding exclusively, and that beginners especially need to have the conditions of the practical workings of different methods of breeding more fully explained to them. This matter will be treated in another article. Let us take now a few recent opinions of breeders.

In the *Reliable Poultry Journal* for November was a symposium on line breeding, from which the following extracts are taken, the name of the writer of each being indicated:

"One can never hope to produce any great number of show birds without judicious inbreeding. If properly handled, size and vigor can be increased."—IRA C. KELLER, Prospect, O.

"We believe in judicious inbreeding, but that must include judicious selection."—J. A. BAILEY, Denver, Colo.

"All through the growth and development of my chicks this season I am handling and studying them for my next season's breeders, watching their defects crop out, looking back to their ancestors to see whether they had the same defects or not, and finally mating up those chicks to overcome in every possible way all the defects I can, little caring whether it be a son to his mother, a father to his daughter, or a brother to his sister, so long as I keep producing better specimens—and I do."—D. H. FOSTER, Gowanda, N. Y.

"Inbreeding has been the greatest bugbear to my success. My experience from year to year has taught me its necessity, but I did not have the courage to follow the dictates of my own experience, for fear of the ill effects of injudicious inbreeding. I could see but the extreme effects. * * * As I look back over the past the greater mistakes have been made in lack of line breeding rather than in overdoing it. I am pleased to say for the benefit of those who may be in the same hesitating position I have been in from time to time, that I have never seen any ill effects from inbreeding from the way I have used it, and had I not used it my birds would not be as far advanced as they are today. * * * Do not get rattled in inbreeding, thinking you are going backward. 'Tis time to cross a bridge when you get to it. There are plenty of old breeders who have practiced it for years, and who wouldn't put in new blood at any cost."—C. S. MATTISON, South Shaftsbury, Vt.

These men are "fanciers," but I think all of them breed good vigorous stock. It is so as far as I have seen it, and I have had stock indirectly from some of them that was hard to beat in egg production. As further evidence in the practical line I give the following from my own experience.

I have repeatedly had letters from poultry breeders asking what to do with stock which having after from three to five or six years of inbreeding brought to where they wanted it in egg production they had spoiled by the introduction of new blood, introduced through fear of the results of carrying inbreeding too far.

From 1893 to 1896, I bred two lines of Buff Leghorns, one for color and general Leghorn characteristics, the other for size, quick growth, and egg production. The same lines were continued on a small scale for two years longer, but in the period first mentioned they were raised in large numbers. In 1896, fully 75% of the pullets of the line bred for size weighed from within a few ounces of five pounds up to nearly eight pounds at seven months old, the greater number not varying much either way from five and a half pounds, though there were quite a number better than six. This stock had been closely inbred while in my hands, and as it was entirely from eggs from one breeder, and as the breed was then quite new it may be inferred that it was somewhat inbred to start with. From small matings of the same stock still more closely inbred I had a few pullets in 1898 that were just as big, strong, and fine as the average of the '96 pullets, and I have not the least doubt that had circumstances permitted continuing this line of breeding it could have been carried on indefinitely without detriment to the stock.

We had forty Light Brahma hens and pullets, all inbred, which in one season, in the five months they were kept in the breeding pens, averaged 110 eggs each.

We had a breeding pen of eight Barred Rocks, hens and pullets from two to four years old, the older ones from a breeder who inbreeds — pays no attention to relationship, and the two and three year olds inbred in our yards, which averaged a fraction over 113 eggs each in five and a half months. Their eggs were the largest I have ever seen from Plymouth Rocks, and when on one occasion I sent two sittings of them in exchange to Mr. A. F. Hunter, his letter acknowledging receipt of the eggs expressed a similar opinion of them.

TWO OF THE ROW OF 6 x 8 HOUSES ON FARRER BROS.' FARM, WEST NORWELL, MASS.

In each of these houses fifty well grown Brahmas are kept through the latter part of the winter, being sometimes confined to the house for days. Their food is cracked corn and beef scraps, supplies of both being always accessible. Water, grit, etc., constantly before them. When the warm weather comes they are still kept in these houses, but have practically free range through the day.

About Limed Eggs.

The situation on limed eggs is somewhat interesting. The use of these goods has steadily decreased for a good many years, corresponding with the growth of the refrigerator method of holding, and is now confined closely to the eastern part of the country. Scarcely any limed eggs are now marketed in the west, but here and in New England there are still some classes of buyers — chiefly among the bakers — who prefer them during the season when refrigerators are apt to show much shrinkage or off flavor. This year the quantity of limed put away in this country is believed to be less than ever before, and the stock seems to be concentrated in fewer hands than usual — one New York house having secured control of all the goods of two large packers. A few have come forward, but the weather has been unfavorable to any considerable demand for them as yet. Fancy goods are generally held at 17c., but this price is too high to induce dealers to buy for future needs, and only small sales have so far been effected. Some very good stock has been let go at 16½c., and considerable sales of fancy quality could be made at that price for later delivery.—*N. Y. Produce Review.*

If you want dollars, use sense in advertising.—*Printers' Ink.*

ARTIFICIAL INCUBATION.

Its Foundation in Nature—Some Natural Laws of Incubation Illustrated and Explained.

By E. C. HUFFAKER, C. E.

[NOTE.—This is the first of a series of articles which will run through six or more issues of the paper, treating in a popular way this most interesting and little understood subject. No poultryman should fail to read the entire series. It is one of the most valuable ever published.—ED.]

Writers in the medical profession have much to say concerning the origin, causes, development and complications of diseases, and no medical work in which the theory of disease was made subordinate to practice could hope to find favor with the profession. Nor can any practitioner who is well grounded in the theories of the diseases he professes to treat hope to long maintain his reputation.

If we turn from medicine to the fisheries, as that term has come to be applied by the fish commissioners of the general and state governments, we will likewise find a large space devoted by writers to what at first appear to be purely theoretical subjects, about which the average fisherman knows and cares nothing. Yet as a result of the theoretical and experimental study devoted to the subject, we find the percentage of fish hatched from eggs laid to have increased from five to ninety-five per cent, while the practical results have been shown in the increased output of the commercial fisheries, amounting to millions of dollars annually.

But when we come to look into the question of the artificial incubation of the hen's eggs, less gigantic perhaps than that of fish eggs, but on the whole not less important, we find a surprising lack of anything that savors of scientific investigation. Here theory seems to be held in slight repute, the great cry being not for a knowledge of the laws of incubation, and the principles upon which incubators should be constructed, but for a handbook of practical rules for the guidance of the operator, who usually prides himself upon his practical ideas, which are supposed to put him in touch with all that is distinctively American. We look in vain through the poultry journals for a discussion of the principles of incubation.

What do we find as a result of this widespread lack of scientific knowledge of the subject? That in artificial incubation as practiced today there is a death rate among the chicks so large that we can find scarcely anything in nature with which to institute a comparison. That while the artificial incubation of fish eggs has raised the percentage of hatch from eggs laid from five to ninety-five per cent, the artificial incubation of hen eggs has not raised the percentage at all, but rather lowered it, so that it is heralded abroad as a great achievement when some operator succeeds better with an incubator than with a hen; and I suppose that for every such instance a hundred might be given where the incubator brings up the rear of the procession. Some writers even go so far as to say that we can never hope to improve on nature, or do better by artificial methods than the hen in the natural way. As a general proposition that statement is altogether misleading; in almost every instance where competition has arisen art has outstripped nature.

Compare savage with civilized men and see how incomparably superior is the product brought out by artificial methods. Compare the weapons of offense and defense employed by nature, the talons of the eagle, the teeth of the tiger, the claws of the grizzly, or the carapace of the turtle, with those employed by man, the Mauser rifle, the Krupp cannon, the iron clad warship. How feeble in comparison are the weapons of nature. Nature supplies the forces: Man wields them, and always in the end with telling effect. The reason he fails so lamentably in artificial incubation is because he has not yet learned how to use it.

It is not the purport of this series of articles to completely solve the problem of incubation, for no one man can do that, but to direct attention to certain facts and some conclusions to which my own investigations have brought me.

We usually excel nature, not by following her methods slavishly and blindly, but by eliminating the adverse conditions with which nature has to contend. Thus we may hope to excel the hen, not by making a nest like the hen's, putting in our eggs, and placing an artificial hen on them; but by first learning by observation and experiment what are the circumstances in which the hen makes her best hatches, and then in the construction of our machines supplying the conditions found to be most favorable for hatching. It is often stated that the hen does equally well under almost all conditions, whether nesting in a haymow, in a damp meadow, or on dry ground. That the statement is false is shown by the experience of every one that one hatch is sometimes very much better than another—because, as is evident, of better conditions.

Our first care, then, should be to make a study of natural methods. The egg chamber of the incubator corresponds to the nest of the bird. If we examine the nests of different birds we will find that, with the exception of the ground birds, their nests usually have a foundation formed of a loose network of coarse twigs, upon which rests a network of finer twigs or grasses, which may or may not be lined with feathers, down, or other soft material, upon which the eggs are deposited. The nests of such large birds of prey as the hawks and eagles are roughly constructed of large branches, having only a small amount of finer material. Altogether the nests are so constructed as to freely admit the passage of the air in all directions. At times there is a foundation of sticks cemented together with mud, but usually such nests are either flat and open, or are raised considerably above the foundation. In all cases abundant provision is made for a supply of fresh air, which, it is to be noted, in all cases reaches the eggs by rising from below, and is in no case forced downward over them as is customary in incubators.

The ground birds, on the contrary, both those nesting on the ground and those burrowing in it, make nests so built as to allow a smaller amount of air to reach the eggs. In each type of nest the end accomplished is the same, the complete ventilation of the eggs, which means that they are at all times supplied with pure air measurably free from the poisonous gases thrown off by the eggs, chief of which is carbonic acid gas, or carbon dioxide. The ground upon which birds build is usually damp or moist. The moist earth absorbs the gases formed, and for this reason a less abundant supply of air is needed than when the nests are above the ground. We see, therefore, why it is that the hen whose nest is located on the ground in a meadow and the one whose nest is in a haymow may hatch equally as well, although the supply of air is less in the meadow nest. The important thing is to get rid of the poisonous exhalations; it is immaterial how this is accomplished. Ordinarily and in season eggs will hatch under a great variety of natural conditions; but when the weather becomes excessively warm the location of the nest becomes a very important matter.

There is a somewhat prevalent belief that eggs cannot be successfully incubated in very warm weather. A lady who held this view recently told me that she had set sixty eggs under four hens in July, and that not only were the hatches poor, but the chicks hatched all died after dozing away a short existence. Inquiry developed that these four hens had all set near one another in a deep horse trough where the nests could have but little ventilation. In the same month I placed one hundred and twenty eggs in an incubator, and out of the same basket took thirty-one eggs which were placed under two hens sitting side by side in a box nailed to a beam in a corn shed. Out of the one hundred and twenty eggs placed in the incubator thirty-three chicks were hatched, the greater part of which died; while out of the thirty-one eggs placed under the hens twenty-six chicks hatched, and these nearly all lived, and thriftier chicks I have never seen. It so happened that the box referred to had a crack in the bottom, one-half inch wide, extending its entire length. The nests were made of hay, and as a consequence there was ample ventilation, and as a result the eggs hatched and the chicks lived.

POULTRY HOUSE ON MR. A. OSGOOD'S FARM, WEST NORWELL, MASS.
In this 10 x 20 house one hundred and fifty Brahmas are kept with free range.

We have here some insight into the work before us. We must provide incubators which will give good hatches in the hottest days of summer and in the coldest winter weather. One manufacturer says frankly that we should not try to run an incubator when the outside temperature goes above 80°. So we must, if we take his advice, shut up our machines from May till October and idly wait for the season to change. Other manufacturers, less candid, boast that their incubators hatch equally well in all sorts of weather and in all climates. Very few of them do so, and there is a fortune awaiting the man whose incubators go right along doing well in hot and moist climates at all seasons of the year. There is no reason why we should stop in hot weather, but every reason why we should go on. Eggs are very fertile in hot weather, they are very abundant, the cost of heat for incubating is small, and there is an abundance of food for the chicks. With an incubator suited to summer work we could easily double our incomes from poultry. How important this matter is may be seen by turning through any catalogue of incubators that comes to hand. In nearly every instance where the hatches have been exceptionally good bear the dates of spring months. Later on all fall short.

The function of the nest is three-fold:—to furnish a receptacle for the eggs; to give air free access to the eggs; to retain the heat imparted to the eggs by the hen. The egg chamber of the incubator serves the same

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PART OF MR. OSGOOD'S FLOCK OF 299 LIGHT BRAHMA CHICKS.

purpose. The hen supplies the heat necessary for hatching, and in addition supplies the egg with a certain amount of moisture, and assists in drying down the eggs. The down upon her feathers contains a small amount of moisture derived from the hen, which prevents the eggs becoming unduly dry. On the other hand, the down absorbs moisture from the eggs, whenever the humidity of the air is such as to allow it to collect upon their surfaces. The down thus regulates the amount of evaporation, and consequently, when hatching with hens, we seldom have any trouble with the air cells. The down has no counterpart in artificial incubation.

Nature has so arranged that the temperature of the hen, like other warm blooded creatures, shall remain very nearly constant, whatever the changes in the outside temperature; so that the temperature of the eggs is also very nearly constant in a properly constructed nest. However, it is to be noted that the outer eggs often have a much lower temperature than the inner ones, and it is perhaps partly for this reason that the hen turns her eggs. The same condition of affairs is found in the egg chamber of an incubator. Turning the eggs has the further effect of preventing the germs from adhering to the shell; and, in the later stages, of bringing new portions of the shell in contact with the allantois. In artificial incubation, the eggs usually turned twice daily; the hen probably turns them irregularly.

As the heat comes from above, and the air rises from below through the eggs, the lower surface will be somewhat cooler than the upper surface, and as the germ lies near the upper surface, it is at all times found in the warmest part of the egg. What the effect of this inequality is, is not known, nor what difference in temperature is most advantageous, but most manufacturers seek to keep the under surface cooler than the upper. This, however, is generally accomplished in a different manner from that followed by nature, since in most incubators the air is forced downward over the eggs.

Not only does nature provide an abundance of fresh air, but ample provision is also made for getting rid of the impure air thrown off by the eggs. The poisonous exhalations can escape in every direction; the heavier gases sink into and out of the nest, the lighter ones are carried off by the general circulation, passing out chiefly through the wings and fluff. In artificial incubation, the ventilation is by no means so perfect, even in the best machines.

It will thus be seen that in nearly every particular, the processes of nature are sought to be repeated in natural incubation: these are essentially, the automatic regulation of the heat, regulation of the supply of moisture, ventilation, turning, and cooling. In addition the eggs are tested, and the infertile and dead eggs removed. All these processes are not, however, reproduced with equal success, and the space devoted to each in the following discussion will be somewhat in the ratio of the difficulty experienced in carrying them out.

(To be continued).

ROUND ABOUT.

Another Visit to West Norwell Poultrymen — Thousands of Fall Hatched Chicks.

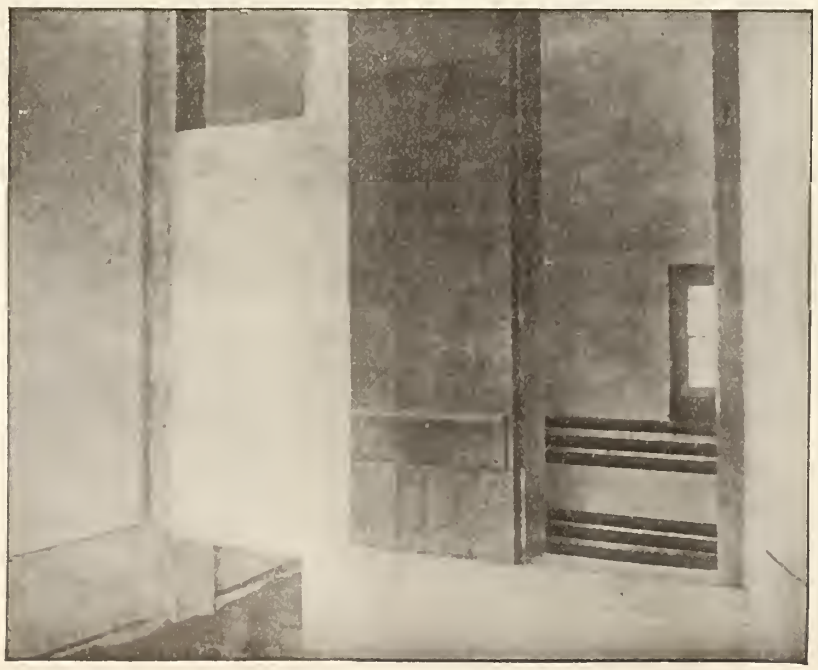
As I came away from West Norwell the other day, it occurred to me that if everyone about to engage in poultry keeping as a business could live in such a community for a few months first, there would be fewer failures, and that if some of the novices in poultry keeping who, when things go wrong, so vigorously find fault with everything but their own incapacity could get an insight into the every day ups and downs of the poultry business in a community where most people are very much interested in it, we would hear much less than we do now of the trickery and dishonesty of those who sell breeding stock and eggs for hatching.

For myself, after a siege of letters and a round of calls (and such misfortunes seem to have the faculty of never coming singly) from people who have got themselves into no end of large troubles by trying to do business by hand to mouth methods, or are about to embark in some branch of the business on an impossible basis; it does me a world of good to get out among the practical poultrymen, and especially to get into a place where practical poultrymen are thick. It is only in the vicinity of practical poultrymen, whether marketmen or fanciers — breeders, that the climate of the poultry world is temperate and salubrious. Elsewhere there is too much of the fictitious and speculative, and little currents of eccentricity drift from everywhere, and unite in the vicinities of the offices of poultry papers. To be sure it is a part of the editorial function to correct such eccentricities, but if he wants to continue to do this even passably well, I think, an editor needs to take frequent rests and recuperations amid plain common sense surroundings. These he may find at West Norwell — in numerous other places, too, but it is of West Norwell we talk this time.

It was the morning of the day after election day that Mr. J. H. Curtiss met me by appointment at Queen Anne's Corners, whence we drove direct to his farm. Owing to an unfortunate delay on the railroad, I was an hour late, and as Mr. Curtiss had to plan our tour of the vicinity to bring him back home at feeding time, we were unable to go to some of the more distant farms of special interest which we had planned last spring to "take in" at this time. But there was enough to be seen nearby to give abundant raw material for an article.

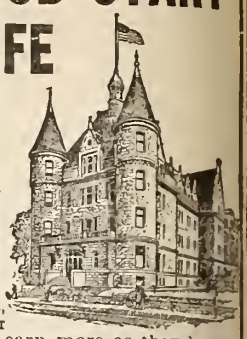
We went first to the Farrer Bros. farm adjoining, where the brooder houses then contained about 3,000 chicks, ranging in age from eight or nine weeks down to twenty-four hours. The first thing that struck me on entering the houses was the general air of "cleanness." You may find this at this season of the year on almost any well conducted poultry plant, but too often (I was about to say *generally*, and don't know but that would be literally correct) the cleaning is incomplete. On the ordinary poultry plant it is a difficult thing to so dispose the stock, and so expedite the annual cleaning up, that the whole place presents a general air of cleanliness. Try as one will, it is only occasionally that he can finish up the cleaning before the places first cleaned begin to show the effects of use again. But here they have the advantage in that they mostly clean out the entire stock in the summer, and except on those places where a part of the eggs used for incubation are produced on the place, there will be two or three months when the place is bare of chicks. This gives an excellent opportunity for a thorough cleaning; and they make the most of it. Not only here, but at every place visited I found the brooder houses clean, and a good depth of fresh gravel on the floors.

Asked about hatches, Mr. Fred Farrer replied that until recently they had been very good, but were now running rather poor. It developed in the course of the conversation that Mr. Curtiss had but a short time before bought some $70 worth of eggs which turned out to be worth only a small fraction of that amount. I suggested to Mr. C., that it was in order for him to turn to the poultry press and "expose" the party from whom he bought the eggs. No doubt it would have amazed some people I know to hear his reply, which was to the effect that no one could know in advance what a lot of eggs might do or fail to do, and that the uncertainties of hatches were a part of the ordinary risks and of the business, and



ONE OF THE "BEDROOMS" FOR OLDER CHICKS IN MR. OSGOOD'S BROODER HOUSE.

A GOOD START IN LIFE



A farmer's boy or girl can get an education in a few months at home that will fit them to take positions in town or city, where they can earn good salaries from the start, continue their studies and earn more as they learn more. By our method of **Education by Mail** we have prepared farmer's boys for positions in machine or electrical works, or with architects.

By our Method

FARMERS' BOYS Have Become { Draftsmen, Electricians, Surveyors.

FARMERS' GIRLS Have Become { Stenographers, Book-keepers, Designers.

Write, stating subject in which interested.

The International Correspondence Schools, Box 1507, Scranton, Pa.

FIX UP Your farm and poultry buildings before snow comes. NEPONSET and PAROID ROOFINGS will help you do it. Samples cost you a postal. F. W. BIRD & SON, East Walpole, Mass., Chicago, Ill.

WHITE WYANDOTTE HENS.

The hatching season being over, we will sell some of our breeding hens at $2 each, to make room for growing stock.

CUMMAQUID POULTRY FARM, HENRY C. DAVIS, mgr. Cummaquid, Mass.

BUFFINTON'S BUFFS.

Buff and Partridge Wyandotte; Buff and Barred Plymouth Rock; Buff and White Leghorn; Buff Cochin; Rose, Pea and Single Comb Rhode Island Reds; old and young stock for sale. No more eggs for sale until 1901.

ROWLAND G. BUFFINTON, Box 677, Fall River, Mass.

DECKER'S NOVELTY LEG BANDS.

for poultry and pigeons. Permanent success; five years in use, a beautiful band for the show room. Marked with any letters or numbers you wish. For pedigree breeding we make sizes to carry clips from shell to maturity. When ordering please mention breed, how many for males, and if for growing chicks give age. Price, 25 cts. per doz.; 40 cts. for two doz.; $1.25 per 100. Send for cir.

W. J. DECKER & CO., Leonia, N. J.

White Wyandottes

Bred for Utility.

Young stock after Sept. 1st. Strong, vigorous farm raised birds from heavy laying stock.

Yearling hens for sale now, $1.50 and $2.00 each.

F. O. PRICE, Bridgewater, Mass.

IT IS PERFECT.

One Gal. Fountain only 50 cents.

Not injured by freezing. Will hang up. Easily cleaned and filled. The best and cheapest. Any supply dealer, or direct from

ATSATT BROS., Mattapoisett, Mass.

Send for Circulars NOW.

CHICKS AND CHICKENS

Will positively thrive when fed with Pratts Poultry Food. It makes large healthy fowl, it cures Cholera and all diseases. Try a package on your flock, and note the difference.

To make hens lay regularly feed Pratts Poultry Food. You'll get more eggs, and get them regularly.

Pratts Poultry Pointers — a valuable 144 page poultry book, sent in return for coupon (found in each package) and 10 cents to cover cost of postage and mailing.

Send 10c. for sample package, or drop postal for 50 page booklet on stock, free. PRATT FOOD CO., 128, 130, 132 Walnut St., Philadelphia, Pa.

had to be reckoned with as causing frequent losses.

It was interesting, too, to learn that when the Messrs. Farrer first began the business a dozen or so years ago, their hatches through a considerable part of the first season were so poor, the outlay for eggs so heavy, and the results so inconsiderable that one of them was disposed to give up before any more money had been sunk in the venture. But the other insisted on going on, and soon things were coming their way.

You could see on this place a noteworthy illustration of the value of good buildings, of the advantage of the modern equipment over that of years ago. In the original brooder house still in use are a number of the old "Rankin" brooders. The house, while serviceable, was never as good as the best modern houses. The chicks in this house are good. Across the road, in the fine new brooder house, the chicks here are better. A fine, smooth lot they were here, and it was evident that Mr. Farrer was pardonably proud of them.

FLOCK OF WHITE ROCKS ON CURTISS FARM, WEST NORWELL.

The boards next the walk had been removed from the top of the pipe brooder in this house, leaving the pipes exposed, a strip of chick mesh wire netting keeping the chicks from getting out. This is necessary during the fall and early winter, as otherwise the brooders are too hot and close. It gave an opportunity to see, on a large scale, how readily the chicks adapted themselves to the artificial "mothering" of the warm iron pipes. There was hardly a section of brooder in the entire length of the half of the house which was full where there were not at least two or three little fellows nestling between the pipes with their heads projected up through the wire netting. As you watched them one would dart away and begin busily scratching in the sand outside; another having begun to feel cool, would come running in, take a position between two pipes which were just far enough apart to touch his body on either side, and after a short warming up would run away again to scratch and feed. I fancied that some of them showed a little of the same sort of affection for the iron pipes of the brooder that a "bottle baby" does for its bottle.

Another thing noted with some satisfaction was that the drinking fountains were serving two purposes. The pans some two inches deep were drinking pans filled with water in which the chicks got as wet as they wanted to. The reservoirs placed on the top of the brooders contained each a supply of feed, handy for feeding times. Perhaps it is only a notion, but I always found open drinking dishes most satisfactory both for hens and chicks. Of the dirt that is really dirty they collect little more than the covered "fountains," and as they are quickly and easily rinsed out as often as the water is renewed, I think that on the whole as much cleanliness is attained with less labor when they are used. As for the bad effects of a little wetting on the chicks, that depends on the chicks; some can stand it and seem to thrive on it; some cannot stand it—such I prefer to have nothing to do with. It may be observed that in all matters of this kind, such as allowing fowls to run on snow, to be exposed to cold, to become wet, etc., the real objection is not to a limited amount of the things themselves, but to conditions being such that the fowls or chicks are not afforded quick relief from exposure or its results as soon as these become disagreeable.

Returning to the Curtiss Farm, we had a few moments to look over the stock here before lunch. One brooder house was pretty well filled with lively youngsters. The other, an old building with very large windows, is to be partially remodeled before being filled up. On this farm we find much more grown stock and a greater variety of it than at most places in this section. A part of this difference is accounted for by the fact that the Messrs. Curtiss are buyers of poultry. Mr. Jos. Curtiss said that for a long time they had been constantly 400 to 500 head of fowls ahead of the pickers, and as such stock consisting of chickens, ducks and geese must be kept right up in flesh until killed, it has to be given better care than poultry on the way to slaughter generally gets. Therefore you see at home on the farm a much greater variety of stock than is produced on it. It may be remembered that in writing of my former visit to this place, I alluded to the demand for soft roasters now calling for a larger proportion of smaller birds than the Brahmas. Here I found them considering the White Rock very favorably for this purpose, it being preferred to the Wyandotte because it remained soft longer. There was quite a stock of White Rocks on hand, one flock of which the camera reproduces for us, and among them were some of uncommonly fine meat type.

After lunch we drove first to the new plant of Mr. Arthur Dunham, a young man who, if I remember correctly, is just beginning his second year in the business. As yet his operations are on a small scale, but his plans contemplate a plant of large dimensions to be developed gradually. He had in all some 400 youngsters, generally good looking chicks, all Light Brahmas, and all hatched from eggs furnished by his own pen of about a dozen Brahma hens.

A little further on we passed, but did not stop at, a place where several hundred were being reared by the natural method. A number of Brahma hens were moving about, each with a brood of a dozen or more chicks, and these were as nice looking a lot as were seen that day, though the broods do not "show up" like the brooder house lots where several hundred run together.

At Mr. Alonzo Osgood's we found the star brooder plant. As I have spoken in very high terms of the merits of several other plants visited and described in these columns within a few months, perhaps this statement requires a little explanation. Of all the houses I have seen I should, if I were about to build, prefer the plan at House Rock Farm, because it seems to me to provide for more economy of labor than any other, and do it without the loss in other directions, but this plant is not (or was not when I saw it) yet in actual operation. How it is to be operated remains to be seen. That will depend mostly upon the operator. Mr. Osgood's plant, after a long term of use, is as clean as when new built. A mechanic himself, he constructed his brooder house and other buildings about his place with everything properly finished, and it is his pride to keep the whole place in apple pie order. Many of the other places about here are clean, but rough as compared with his, which is smooth and clean, and gives you the impression of finish.

The smaller chicks here are kept in brooders constructed on the common pipe system, but at about two months of age the chicks are transferred to the other side of the house part, a section of which is shown in the illustration on page 426. In this house each pen has two compartments, the outer of which might be termed the living room, and the inner and smaller the bedroom. Both rooms are lathed and plastered, the plaster having a smooth finish. As the illustration shows, the inner rooms are heated by pipes running along the north wall, and are lighted by small windows in this wall. The low wide opening in one corner at the floor gives ready ingress and egress, and the square opening higher up in the wall affords ample ventilation when the door between the two rooms is closed.

In this arrangement, as the student of brooder house plans will have discovered, we have a modification of the plan of heating the whole house, which has been a subject of frequent experiment. Here the small rooms only are heated, and these, though much better constructed than is usual in brooder houses, are not used for small chicks. Mr. Osgood has the reputation of being able to make a soft roaster of given weight quicker by two weeks than any one else in the business. Perhaps his method of brooding the older chicks helps toward this result.

In this side of the house was a record breaking lot of Light Brahma chicks, *299 chicks over two months old, alive and hearty, from 300 taken from the incubator at one time.* Mr. Curtiss calls them the best looking lot of chicks he has seen this year. And here is something for a good many people to ponder over—and be slow to decide where the fault lies when things go wrong. Of another lot of nearly the same number hatched from the same lot of eggs, taken from the incubator at the same time, and brooded, fed, and in every way cared for in precisely the same way *not one remains alive.* It is of course clear that something went wrong in the incubator. What it was puzzles Mr. Osgood, who may fairly be called something of an expert in artificial hatching.

The Cardinal Fault.

The cardinal fault in most advertisements is that they say nothing. They are like a traveler walking into a place of business, laying his card down, and walking out again. Why cannot an advertisement be made to talk to the reader of a newspaper as a traveler or a shopman talks to his customers?—*Newspaper and Poster Advertising.*

One Way of Viewing It.

Advertising is not a necessity; neither is the telephone, nor the telegraph, nor the limited train; but they are mighty convenient when you want to get there quick.—*Waterloo* (Ia.) *Tribune.*

The value of advertising space in any advertising medium is really relative. It depends, to a great extent, on what the advertiser puts in it.—*Printers' Ink.*

Stay White Wyandottes

Are as easy to breed as the yellow and creamy ones if you have **stay white** blood. The sun has no effect on them if they are **bred right.** I have bred White Wyandottes **longer than any New England breeder,** and **those who know** can tell you that I have bred the **winners at the leading shows for 15 years.** If your White Wyandottes **do not stay white** you have the wrong strain. If **you want quality** at right prices write me. I have **four farms** covered with them.

A. C. HAWKINS, Lock Box, 5, **Lancaster, Mass.**

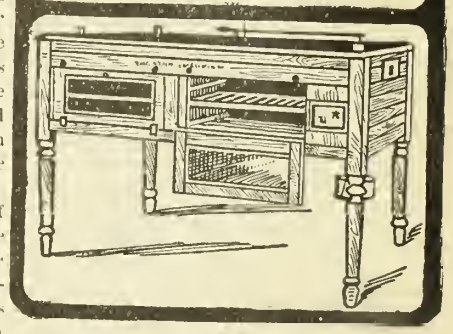
STAR

INCUBATORS

embody more profit-making improvements than any other. The air in egg-chamber is always evenly dry and warm, because heat regulation is perfect. No artificial moisture is required because ventilation is perfect. Every favorable condition is provided, and the result is that the **Star** hatches *more* and *healthier* chickens than any other incubator.

We send free a valuable book on poultry-raising, prepared by experts.

STAR INCUBATOR CO.,
10 Church St., Bound Brook, N. J.



STAR INCUBATOR CO.

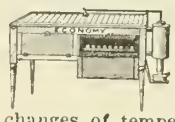
A full line of Star Incubators and Brooders can be seen at the New England office, and prompt shipments made. Catalogues mailed free on application. Also Poultry Supplies and the Star Specifics.

W. W. RAWSON & CO.,
New England Agents.
12 and 13 F. H. Square, **Boston, Mass.**

BARRED ROCK COCKERELS

Large vigorous birds from Boston and New York winners, at $3 and $5 each. Pullets hatched in April now laying.

M. S. GARDNER,
Philadelphia, Jeff. Co., **N. Y.**



—ECONOMY—
Incubators and Brooders.

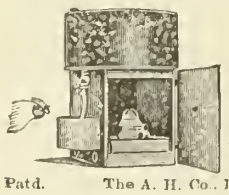
Hatches all fertile eggs. Absolutely automatic. Saves oil. Constructed so it is not affected by sudden changes of temperature. It is all that the name implies. Send for circulars.

ECONOMY INCUBATOR AND BROODER CO.,
360 W. Main St., Battle Creek, Mich.

WHITE WYANDOTTES,

WHITE INDIAN GAMES,
LIGHT BRAHMA BANTAMS,
ORR'S CLEAR GRIT,
RELIABLE INCUBATORS.

For sale by THE ELLIOT FARM,
D. LINCOLN ORR, Box I, Orr's Mills, N. Y.



This Fountain is safe, durable and practical. It never freezes. It warms the hen house without over heating. It gives the fowls pure fresh water at all times. It increases egg production. Saves time and labor. Inexpensive to operate. Satisfaction guaranteed. Circulars, price list and testimonials free. Address,

Patd. The A. H. Co., 1311 Broadway Toledo, O.

BARRED BEAUTIES.

If you want first class breeding stock in *Barred Plymouth Rocks*, send your order to one who has bred them exclusively for 14 years. My birds have won in strongest competition at leading shows. I have some grand cocks, cockerels and hens for sale, which have no superiors as breeders. They are bound to please you. My exhibition stock is second to none, and prices are a matter of correspondence. Eggs in season. Circular free.

J. W. RANDALL, Prop.,
Meadowview Poultry Yards, 400 Salem St.,
Malden, Mass.

"IT'S SETTLED! C.P. CO'S CLOVER IS THE BEST IN THE MARKET: EQUAL TO IF NOT SUPERIOR TO CLOVER MEAL."

Cut Clover by our new process is equal to, if not superior to Clover Meal. 50 lb. bags, 2 bags, 75c each; 5 bags, 65c each.

Ground Beef Scraps—(Limited quantity only) 100 lbs. $2.00.

M. C. Grit—100 lb. bags; 20 bags, 35c each; 10 bags, 38½c each; 5 bags, 43c each. One bag, $1.00.

M. C. Dust Sand—Ten 100 lb. bags (no less sold) 20c ea.

Crushed Oyster Shells—100 lb bags; 20 bags, 27½c each; 5 bags, 35c each; one bag, $1.00.

Russian Sunflower Seed—25 lb. pkgs. @ 6c a pound.

CLEVELAND POULTRY CO., Plattsburg, New York.
Branches at Warren, N. H., and Baltimore, Md.

Don't Mistake the Cause for the Effect.

There are a few things in poultry culture which breeders will do well to consider. Whatever the cause of a trouble, the effect once apparent it is folly to use the affected specimens, for by so doing you establish a defect hard to eradicate. One thing is certain, a male that is weak in procreative vigor will surely indicate the same by diminutive embellishments known as male characteristics. Thus a Light Brahma cock, narrow in skull, with small ear lobes and wattles dim' .utive or absent, is never a sure getter; the procreative germs will be lacking or weak, and his appearance as described above will surely indicate this lack of vigor. The female, on the other hand, may have these features of comb, ear lobes and wattles very small indeed, yet lay very large eggs. The Light Brahma hens which, in many instances, lay eggs to weigh thirty-seven ounces to the dozen, have these head embellishments very small. So, while want of procreative power in the male shows its effect in the effeminate appearance, we cannot say that small combs are the cause, or will, in the hens, denote that they will lay very small eggs, for there are other things, such as excessive blocky shape, superabundance of plumage, multiplicity of small ancestors and deteriorated size, all of which will affect egg production, making the eggs fail in size, become uneven in shape, and far less in number.

Procreation is the work of the male. The hen furnishes the nourishment for the germ during incubation, and the hen is far more responsible for the size of her progeny than is the male, for if her nourishment of the germ is meager and lacking, the development and size of the germ will receive a check which can never be entirely overcome in after life.

It is true of all breeds that the females are smaller, and that their combs, earlobes and wattles are smaller and neater (and disproportionately so) than in the male. They have but the shadow of that which in the male is substance. Hackle, saddle-hangers and sickles are exclusive male characteristics, and when any of these features are lacking, or have not a generous development, they are the effect and sign of a low state of procreative power.

When a breed (I care not what the breed) assumes blockiness as a feature in an extreme form, the hens are never as good layers, either in size or number of eggs, as those individuals which have the shape favoring that we call oblong. The Cochin shaped, heavy plumed Brahma, the short bodied Plymouth Rock, the pigeon breasted, excessively blocky Wyandotte, all lay smaller eggs and less of them than their larger framed, oblong sisters of the same breeding. Thus do we see that shape sadly effects fecundity, just as the different shaped cells of the bee produce the queens or the workers.

And one of the breeds that has suffered most in this respect has been the Wyandotte, both at the hands of judges who force the winners into this squatty, wide bodied shape which is at variance with egg production, and because of ancestral influences of the Sebright Bantam, White Hamburg, Rose Comb Leghorn, Buff Cochin, Dark Brahma, and albino Plymouth Rock. A multiplicity of short bodied, small egg races, coupled with the insane demand of the judges for short bodies, has made it a hard matter for ordinary breeders to satisfy patrons that fowls of this race are producers of first class eggs. While if they would breed the males only with generously furnished pendant earlobes and wattles, and females with long formation of body, and set only eggs that weigh a pound and a half or more to the dozen, they would have no trouble to raise Wyandottes to weigh in excess of present Standard demand. These birds can be a reasonable exponent of the Standard. All the judge has to do to make them so, is to throw himself upon the side of nature in its most productive form and punish extra shortness the same as he would excessive length of body, thus giving the medium shaped birds the prizes. Then after three generations of this course the breeder would no longer have to make apologies for their egg production, either for size, shape or color.

Do I err in saying that more than half the incubator raised White Wyandottes fail to reach Standard weight, and the result is twenty to twenty-two ounce eggs? The superior excellence of this breed as broilers has led to the marvelous increase in the use of their eggs by broiler plants, a large percentage of which buy their eggs. To cater to this trade we see many an advertisement like this:

Eggs for Hatching.—From our mated pen, $4 per sitting. Eggs for incubators $5 per hundred; and thousands of eggs of all sizes, shapes and colors are shipped from the general flocks in which are many hens weighing not more than three pounds, and from that up. Do you wonder we hear the cry that as a race they lay small eggs, and that we are obliged to admit it? It is not necessary that this should be so. Who is to blame for it?

I have in mind a pullet hatched under a hen from eggs laid by a hen also hen raised, and weighing six pounds, that since May 15, in one hundred and twenty days, laid forty-seven eggs that weighed over twenty-eight ounces to the dozen, with even brown colored shells, even in shape, so near in size that the extreme difference was two and a half pennyweights; also hatched and reared a brood of chickens in that time, besides being twice broken from incubating, and this hen had laid constantly from Dec. 1, when the record commenced.

The breeder who sets or sells eggs weighing less than twenty-four ounces to the dozen is no friend of this breed, and should be branded as its enemy. The condition I have named, using this breed to illustrate, affect each and every breed the same way. The American Poultry Association assumes to protect and foster all thoroughbred fowls, and I look upon this matter as one of its duties undone. Every Brahma male with only rudimentary wattles should be disqualified, and the demands for the oblong style of body, with close plumage, for wide skull, full wattles and medium sized comb enforced. Full pendant wattles, full Standard weight and medium length of body should be required in Plymouth Rocks. In the standard for Wyandottes the word "short" should be cut out of the description of "back" and "body," a full medium sized comb demanded in the male, and Standard weights for all Wyandottes raised from one-half a pound to a pound.

This would stop the use of males that have become stale and impotent by loss of procreative power, and give us females that will lay eggs of good fair size, and a full complement of them. I. K. FELCH.

DUCKS, GEESE, AND BRAHMAS IN PASTURE ON CURTISS FARM, WEST NORWELL.

The Three Essentials.

The three essentials of good advertising may be enumerated briefly as follows:

1.—Having something to say.
2.—Knowing how to say it.
3.—Knowing where to say it.—*The Buyer.*

Is There Danger of Overdoing the Poultry Business in New England?

In looking over our Nov. 15th issue of FARM-POULTRY, which is a specially interesting and attractive number, we note two or three points which are worthy of further treatment, and upon which, we trust, you will enlarge in future numbers.

You have found "the opinion among poultrymen near Boston that the business is a trifle overdone," and "that poultry has sold several cents a pound lower this season than last, and lower generally than for a long time." We cannot help wondering whether or not this is an impression merely, or whether it can be verified by a comparison of the prices this year with those of previous seasons. In some quarters, at least, there is a general impression that prices of both poultry and eggs have averaged pretty well this season, that while some specially fancy brands of chickens have been a little lower, the general average has not been much below that of former seasons, while the price of eggs has, if anything, been higher. To New England producers the price of eggs is really of more importance than the prices of market poultry. There is a somewhat prevalent feeling among the less informed poultrymen that the use of incubators and brooders will have an unfavorable effect upon the profits of the business, that is, that they will tend to encourage overproduction, and thus bear down the prices. When one stops to consider how very many there are who are unable to get good poultry and eggs, and that the ordinary demand has to be supplied by excessive importations from far away states, it seems improbable that the business will be badly overdone for many years to come. Very many of the incubators which are sold are bought, not so much to add to the number of birds raised, as to get them hatched at the best time of the year, and when they are most wanted. The duty of hatching and rearing chickens is generally put off by the hens until the approach of the warmer spring days. Inability to get good sitters in sufficient numbers makes it imperative that artificial methods should be used. As noted in one or two recent issues of your paper, the sales of incubators and brooders have increased wonderfully in New England. There is no part of the country, possibly of the world, where artificial methods are so universally in vogue. The wonder is, that the demand instead of lessening continues to grow, and each succeeding season finds much larger sale for goods of this character. The poultry public is much interested in this question. We are in a position to give a few figures which are, perhaps, somewhat startling, but which, nevertheless, may be easily verified. The Cyphers incubator and brooder, as is well known, have only been on the market some four seasons. Business was started

Hens lay eggs

when fed with the things eggs are made of. Eggs are mostly albumen, produced by the hens from the protein they absorb from their food.

Bowker's Animal Meal gives a hen the maximum of protein and other egg making material. Always sold in yellow bags and packages.

The Bowker Co.,
43 Chatham St., Boston.

DON'T SET HENS the same old way when our new plan beats 1:38 to 1. 100 Egg Hatcher Costs Only $2. 67,000 in use. 1000's of testimonials. 6000 agents wanted, either sex. Big catalogue and 25c Lice Formula FREE if you write to-day. Natural Hen Incubator Co., B 3, Columbus, Neb.

Breeders! Breeders!
GOOD BREEDING STOCK, $1 EACH.
White Wyandottes and Pekin Ducks, yearlings used in our breeding pens this season. Order stock now, and get your pick. Cut Clover, Poultry Food, Poultry Supplies. Circulars and samples free.
W. R. CURTISS & CO., Ransomville, N. Y.

A GREAT BARGAIN.
During Nov. fine Barred Rock pullets can be bought for $1 each. Grand breeding cockerels for $1, $1.50, and $2.
W. B. CRANDALL, Whitesville, N. Y.

The Star Ventilator
High Grade Roofing Metal, Spanish Tiles and Shingles.
MERCHANT & CO., Inc., Philadelphia, Pa.,
Sole Manufacturers.
Write for illustrated pamphlets, mailed free upon application.

Profitable Hens
are those which lay the year round. Most hens "lay off" in the winter. They won't if you feed them right. Feeding right means giving them plenty of roots and vegetables—green food. The
Banner Junior Root and Vegetable Cutter
cuts all roots and vegetables just right for poultry food. Cuts fine enough for chicks and ducklings. Send at once for booklet; tells all about it.
O. E. Thompson & Sons, Ypsilanti, Mich.
Jos. Breck & Sons, New Eng. Agts, Boston.
No 7.

When Eggs are High

Begin to feed Sheridan's Condition Powder to your flock early in the fall and your hens will coin money for you during fall and winter months when eggs are high. It makes hens healthy and makes them lay abundantly.

SHERIDAN'S Condition Powder
Used and endorsed by prosperous poultry raisers for over 30 years.
Sold by druggists, grocers, feed dealers. If you can't get it we send one pack. 25c; five, $1. A two-lb. can, $1.20; six, $5. Express paid. Sample Poultry Paper free.
I. S. JOHNSON & CO., Boston, Mass.

on a small capital, and was not extensively advertised prior to 1898. The New England office at No. 34 Merchants' Row, Boston, was opened and business begun Oct. 17, 1899. Since that time there has been shipped into and sold in the New England states rising forty-three carloads of incubators and brooders. To properly appreciate what this means it should be borne in mind that the Cyphers incubators are very closely packed in order to save freight costs both for the company and to the purchasers. If these incubators had been crated and shipped, as a large proportion of incubators are, with legs on, they would have filled a train of over seventy-four freight cars of the regular size. Notwithstanding this immense number and the fact that from 180 to 190 hands were busily at work from seven o'clock in the morning until ten and eleven at night in the busy season, it was impossible to supply all demands, and thus the number sold does not cover the actual demand. Had the supply been equal, two or three more carloads could easily have been sold. To tell of the various places and conditions where these incubators are used would be to write a large chapter of the history of the season's poultry work in New England. It does seem, when we consider the proportions of this trade, that there is a possibility of overdoing the business. When, however, we stop to consider that twenty years ago, yes, within ten years, the same was said of farm machinery, and when we compare the sales of all sorts of farm implements at that time with the sales at the present day, we at once see how groundless were the fears that such machinery would completely upset all farm values. The facts are, that today there is a greater demand than ever before for such goods, that no farm can succeed without them, and that in their use lies the only escape from the unending toil and drudgery which so generally characterized old time life on the farm.

GEO. H. POLLARD.

A Good Word for the Guinea Fowl.

After reading many of the articles about Guinea fowls, and what a number of poultry books say on the subject, I cannot help wondering where the "authorities" obtained their information, and how some things so untrue have come to be heralded as facts.

One writer who has published a number of excellent books on poultry, and has done much for poultrydom, says of the Guinea:—"This bird mates in pairs, and an equal number of males and females must therefore be provided to prevent disappointment." Further on he states: "Nothing, however, will persuade them to sleep in the fowl house, unless it be large and lofty," etc. Another "authority" states positively that Guineas must have unrestrained freedom, that they cannot be successfully grown in confinement, and that they cannot be taught to lay or roost in the poultry house. Another writer tells us that Guinea chicks are very difficult to raise, and that in spite of the best of care they are likely to die at the slightest provocation. Still another says that the birds are a noisy nuisance, and that their flesh is not very good. In fact, the Guinea has been pretty well blackguarded by its friends as well as by its enemies.

I have not the least desire to pose as an "authority," but I have had a little experience with Guineas both on the farm and in the city, and it seems to me that this excellent fowl deserves more widespread popularity, and should have the truth told about it.

The Guinea's worst fault is that it is noisy; there is no denying that. If anything, the white variety and crosses are less noisy than the pearl variety, but a good deal depends on how and where the birds are grown. Both males and females when excited or alarmed set up a harsh screech that sounds like a wooden cog rattle gone crazy. The male's voice is harsher and louder than that of the female, his wattles are larger and longer, and he has a strut peculiar to his sex. The female owns exclusively the cry of "buck wheat, buck wheat," or "come back," but there is nothing harsh or disagreeable about her cry, and many people enjoy hearing it, even when it is sung during the small hours of a moonlight night. If housed, the birds are seldom noisy at night unless disturbed. They are light sleepers, and are quick to make a racket if disturbed by night prowlers. The old males are sometimes, but not always, abusive to other fowl if kept in the same runs with them.

The meat of the Guinea is excellent, all dark meat having a delicious flavor. They make fine eating up to two years of age for any style of cooking, and the older fowls make good pot pie. There is no fowl that makes better eating.

The hen is an excellent layer, begins laying early, about the first of March, and lays almost every day until fall before going broody. The eggs are of fine flavor, are rather small, and shaped something like a whip top, tinted a light brown, and marked with dark brown spots. Many farms in the south keep large flocks of Guineas in a half wild state to supply eggs and meat for home use. Some are marketed.

The Guinea hen does not make a good mother; she is too nervous, sits too late as a rule, and if allowed to bring up her young will make almost wild birds of them. The eggs can be hatched under hens or in an incubator, and the chicks raised by hen or brooder. The period of incubation is about twenty-six days, and may range from twenty-five to twenty-eight days. The chicks are active, wild little creatures, and are very strong on their legs and ready to run as soon as dry. Unless confined for the first few days, they are likely to stray and get lost. They are quite hardy, and are easier to raise than turkeys. They can be quickly tamed and taught to do anything that other chicks will do. The same care and food used for other chicks will raise Guineas successfully. Both old and young birds need rather more animal food than hen chickens. If brooder raised, they are very tame and easily handled. The brooder must be kept clean and well aired, and not allowed to get overheated. (More brooder chicks of all kinds die from too much heat than from insufficient heat, anyway). Grown with a hen, they become very much attached to their mother, and when full grown will follow her about and roost with her at night in the poultry house.

One male is sufficient for four or five females, and sometimes a very active male will take care of a greater number. As more than one male can run with the flock without creating trouble, it is well to supply a male for every four females.

The fowls can be grown and kept in confinement, but adult Guineas do best where they can have liberal range. If kept in confinement, the runs must be wired in on top, for Guineas are great flyers. They can be kept in yards and houses and taught to roost and lay in any poultry house. After they have formed the habit of using the poultry house, they may be permitted to range the greater part of the time, without having much more trouble from stolen nests than would be had with other poultry. On the farm, if allowed their liberty, they will do very little damage to crops, and will destroy millions of injurious insect pests. They will raise an alarm on the approach of strangers, hawks or marauders of any sort. If they are to be taught to lay in the poultry house, they must be trained when young and kept tame; the nests should be dark, and should be set on the floor, beneath the droppings board.

On range, the adult birds will forage for a large share of their living, feeding on insects and weed seeds. They should be fed in the poultry yard, night and morning, to prevent acquiring wandering habits.

Guineas will never become popular in the city on account of their noise; but for the benefit of any who may wish to try the experiment, I will say that I have handled successfully a small flock of Guineas in confinement on a quarter acre city lot, and know of a number of town lot poultry yards where they are kept in pens with other fowls, chiefly for their watch dog habit of raising an alarm when thieves approach. Every farm ought to have a flock of Guineas to supply the home table with delicious meat and eggs at very small cost. There are, undoubtedly, great possibilities in raising Guineas for market, for as soon as their table merit is more generally appreciated, there will be a good demand for birds and eggs. With proper management, Guineas can be made to do almost anything possible with other sorts of nervous active poultry. They are almost wholly free from disease, even when kept in confinement.—P. T. WOODS, in *Country Gentleman*.

The Buyer and the Seller.

The exactions of would be buyers of fancy fowls are about the most annoying thing the average breeder has to contend with. Nine out of ten prospective buyers want to get the best the breeder is able to produce for a price which looks ridiculous to the man who knows from experience how difficult it is to raise breeding or exhibition birds of the very highest class.

One of the most suited customers I ever had wrote me as follows: "You will find enclosed $——. Kindly send me a cockerel as nearly approaching standard requirements as you can afford to for that sum." The amount enclosed was large enough to enable me to send a good bird, and the buyer's satisfaction was fully expressed after he had received him.

A neighbor of mine who had never had much experience with fancy fowls, concluded to buy some Buff Plymouth Rocks a year ago, and he came to me for advice as to buying them. I advised him to put as much money as he could afford to pay for a pen in a letter to a well known breeder of that variety, and tell him to send him as good a pen as he could for the money. This he did, and the pen he received fully justified that method of doing business. The experienced breeder can of course closely describe such a bird as he wants, and perhaps suit himself better when buying, by doing so, but I am convinced that the man of limited experience will do better to trust to the judgment of the seller, provided he buys of a breeder of repute.

Even among breeders of considerable experience, however, I have found that opinions differ radically when they attempt to estimate a bird's worth, point by point. A customer once described a male bird such as he wanted, and I was able to fill his order to his entire satisfaction, but the bird was one that I would not have used to breed from, nor would I have sent him to any customer who simply wanted a bird approaching as nearly as possible to the requirements of the Standard. The purchaser may have had an object in view in using a bird answering the description he gave; if so the bird may have been of much use to him, but he would not have been a good bird for almost any other man.

There is another class of buyers who carefully describe what they want, but who forget the descriptions given before the order is filled. One of this kind ordered a bird which he wished to be as near perfection as possible in color and station; he stated that he was not particular about having a first class comb, for his own birds were so good in that respect that a little fault in that direction would do no harm. What he wanted was good color and high station. A bird was priced to him answering his description as to color and station, but not having an exhibition comb. Had he been in possession of a first class comb the price would have been three times what he was priced at. The buyer wrote upon receipt of the bird that he was all right in color and form, but he also made a big kick because he was cut three and one-half points on his comb at a local show. This class of kickers are about the most annoying of any the breeder has to deal with, but they will probably continue to make life miserable to someone as long as fancy fowls are bred.

I have had a little experience in selling birds on approval, and find serious objections to that method of doing business unless the buyer is known to be a man of considerable experience as a breeder. To a man of experience who is likely to know what constitutes a first class bird, and who would therefore know the actual value of a bird answering his description, it might be well enough to sell a bird on approval.

To all others this method would necessarily have to be modified so that the buyer would have to pay express charges both ways on birds which failed to suit. As long as people buy birds by correspondence there will be dissatisfaction and friction between sellers and buyers, not because of dishonesty—except in isolated instances—but because the buyer is often, and the seller occasionally, ignorant of what a bird should be to bring a good price, or to conform to Standard requirements.

That it is not often possible for an intending purchaser to personally inspect birds previous to purchase is true; but that is altogether the most satisfactory method when it can be put into practice. With the possibility of personal inspection eliminated, the experienced buyer finds it best to describe just what he wants to a breeder of good standing, and the novice will find it best to intrust the same kind of a breeder with the selection of a bird that will be as good as the amount of money he can spend will justify. HENRY L. ALLEN.

YOU can buy a chimney to fit your lamp that will last till some accident happens to it.

Macbeth's "pearl top" or "pearl glass" is that chimney.

You can have it—your dealer will get it—if you insist on it. He may tell you it costs him three times as much as some others. That is true. He may say they are just as good. Don't you believe it—they may be better for him; he may like the breaking.

Our "Index" describes *all* lamps and their *proper* chimneys. With it you can always order the right size and shape of chimney for any lamp. We mail it FREE to any one who writes for it.

Address MACBETH, Pittsburgh, Pa.

GOLDEN WYANDOTTES.

I have bought the entire stock of Fred Borman's prize winning Golden Wyandottes, including all of his prize winners, I shall offer for sale a few yearling cocks and hens, and some choice pullets and cockerels, at prices that will insure quick sales.
HAZLEMERE POULTRY YARDS, Knightsville Cranston, R. I.
W. B. RICHARDSON, Prop.

MAKE EGGS
AS YOU MAKE MILK, BY PROPER FEEDING.

We are offering the following, all very finest quality, at $2 per 100 lbs., for immediate orders—**Beef Scraps, Meat Meal, Bone Meal,** and **Ground Bone.** Fine quality **Oyster Shells** 50c. per 100 lbs. Green Bone Cutters $6.50 each. Clover Cutters $3.50 each. Poultry Netting and other supplies at low prices. Wholesale and retail.
CHAS. F. SAUL, Syracuse, N. Y.

A Good Neighbor

may be spoiled by a bad fence. If you buy
ADVANCE FENCE
you will always have the best of neighbors, for your stock cannot break through onto the land of others.
We Sell Direct to Farmers
At Wholesale.
and do not sell it any other way. You save the middleman's profit and get the best all wire fence made. Send at once for circulars and special discounts.
ADVANCE FENCE CO., 119 Old St., Peoria, Ill.

ANOTHER VICTORY
FOR
DAVIS'
Blue Barred Plym. Rocks

At the **Amesbury** and **Salisbury** Fair, Sept. 25—27, 1900, Atherton, judge, I won **1st, 3d** cockerels; **1st, 2d, 3d** pullets; **1st, 2d** hens; **1st, 2d** cocks; **1st** pen; winning **every prize** competed for but one.
At the **New England** Fair, Aug. 27—31, 1900, my birds made a **clean sweep**, winning **every** prize offered on Barred Rocks. If you want choice **exhibition** or **breeding** birds write for prices, and get my Catalogue. W. B. DAVIS,
Care of Merrimack Nat. Bank. Haverhill, Mass.

HEN MURDER

It just seems like that to allow your hens to droop away and gradually die from lice, etc., when it is so easy to prevent it. A perfectly safe and guaranteed remedy is our
FRANKLIN
LICE KILLER
It kills all **lice, mites, fleas** and other poultry vermin. It's so easy to apply—no handling of fowls. Merely sprinkle it liberally on roosts, dropping board, floor, &c. It will not only rid the fowls but will also rid the house of these pests.
Cheap, too—1 qt., 30c; ½ gal., 50c; 1 gal., 75c and a five gallon can for $3. Write at once.
The Franklin Co., No. 12 Main St., Bound Brook, N.J.
PLEASANT VIEW POULTRY FARM,
Hopewell, N. J.
State Agents for New Jersey.

EXPERIMENT CLUB.

The FARM-POULTRY PRACTICAL EXPERIMENT CLUB is composed of readers of the paper who keep accurate daily records of the methods and results of their work with one or more pens of fowls, on blanks furnished by FARM-POULTRY, and returnable to it at the end of each month.

After the yearly tabulated report of the work of the club is published record sheets are returned to all members who request it.

THERE ARE NO FEES. Membership in the club costs nothing.

In addition to the regular work of the club, a number of special practical experiments will be arranged during 1900. All who are interested in any line of investigation are invited to avail themselves of the opportunity the club offers for co-operation with others similarly interested.

Why Can't We Get Together?

Why can't members of the club get together, —at least some of them? It occurs to me that there are enough of us near Boston, many of whom will probably attend the Boston show at some time during the week to make a meeting enjoyable and helpful, if we could all get together at once. Such a meeting might well include any who have been connected with the club during the three years of its history. It seems to me that with a number of special experiments in view for next year, it would be a decided advantage to the club to have as many members as can get together, compare experiences, and perhaps arrange for some joint work much more satisfactorily than can be done through the paper or by letter. I have long felt that as far as it was practicable it would be an advantage to the club and to members individually, if those located in the same vicinity would make an effort once or twice a year to get together. We could have a meeting at Boston, another at New York, and possibly others. If Philadelphia dates were not so near, we could arrange for a meeting of a few members at that show. Perhaps it is not too late yet, if members who expect to attend there will communicate with me promptly. Suppose we try and see what can be done.

To Visit Club Members.

Another way in which I propose during this year to make the club department of the paper more attractive, is by personally visiting as many of the club members who are furnishing valuable reports to the club as the time at my disposal will permit. I have an idea that in some cases I can find more to tell than the members do. Possibly, too, a few visits to nearby members who are having "rough sledding" trying to make satisfactory reports, will bring out some reasons for poor results, which will be suggestive to others going through like experiences.

Poultry and Potatoes.

Editor FARM-POULTRY: — Last spring, as an experiment, I planted my poultry yard containing one-fourth of an acre to potatoes. I have just dug fifty bushels of fine potatoes from this quarter acre. I did nothing but plant and dig the potatoes; the hens did the rest — kept off the bugs, kept the ground free from weeds, fertilized the crop, and kept the ground in fine condition, so that I didn't need to cultivate. The yield is double that on land adjoining, and the potatoes are entirely free from scab. Seventy-five hens occupied the quarter acre. When the potatoes were planted, a few whole potatoes were thrown into the yard for the fowls, so that they had no need to dig out the seed potatoes. I think one hundred hens could care for an acre of potatoes to their mutual benefit.

Ludington, Mich. F. N. CLARK.

Fears He Is "Losing His Grip."

Mr. Ball says, "Eggs are very scarce. I get half the least I ever got before. The lowest number in 1899 was 62. The lowest in 1898 was 80, and that year they were below 100 but 8 days. Looks as if I was 'losing my grip' on eggs. The pullets look promising, however, and I 'have hopes.'"

Whatever is the reason, the shortage of eggs seems to be general this season. I have been noticing it for several months in the club reports, and have seen frequent references to it in the produce papers. In Boston and suburban towns fresh eggs are selling readily at 40@45cts., with every indication that they will go still higher.

Some Hens are Laying Well.

But some hens are laying well, and paying well too. Mr. E. S. Wilson, who was a member of the club for a part of last year, but obliged by change of residence to discontinue reports for a while is back in the club, sending reports now from Franklin, Mass., and his first report is a good one. He has a mixed flock of 18 yearling fowls, of which 13 are White Wyandottes, 1 a Hamburg, (variety not stated), and 4 Hamburg-Wyandotte cross. The 18 hens laid 175 eggs — not quite 10 each, which brought in $4.67. As the hens have the run of a large yard in the mornings, and of the farm in the afternoons, the cost of feeding is small — only 80c. outlay for the month, leaving $3.87 earned.

Mr. Parsons' flock of White Wyandottes, which was one of the money makers last year, is keeping up its reputation. The 17 hens laid 242 eggs. Of these, 4 dozen were sold at 35c. per dozen, the remainder at 40c., the total receipts for eggs being $7.87. Deduct $1.60, the cost of feeding, leaves $6.27 earned.

Mr. Rowe, of Rutherford, N. J., also has a pen of Barred Rocks that gave a good report of themselves in connection with his cash account for the month. The 15 hens, 18 months old, averaged 13 eggs each; eggs brought $5.69, food cost $1.47, earnings $4.22.

Mr. Eliot V. House, of Cowesett, R. I., sends report for 46 hens, 36 Barred Rocks, and 10 White 'Dottes, yearling hens recently purchased, whose eggs for October brought him in $13.13; food cost $3.78, balance $9.35. It will be interesting to watch this lot of hens and see whether they keep it up; sometimes after hens have been moved they make a wonderful spurt for a short time, and then fall back. Will these do it?

An Interesting Member and Interesting Report.

I think the club will be as interested as I have been in the personality and work of Mr. S. W. Veditz, of Colorado Springs, Colo. Mr. Veditz and his wife, both deaf, are instructors in the Colorado school for deaf and blind. His experience with poultry dates only from last February. He began then with a mixed and rather mongrel lot of 21 hens from which he succeeded in getting an average of 102 eggs per hen from March 1 to Nov. 1. He proposes to make a specialty of Barred Rocks, and has already ordered some breeding stock from one of the best breeders in the country. "I do not," he writes, "regret having started with my present mongrels—they have proved valuable for the experience furnished; but I do regret not having started earlier. Judging from the advertisements of the crack breeders, it takes twenty years to establish a 'strain' of Barred Rocks, and if this should hold in my case, I shall be sixty by the time my strain is an accomplished fact, and my family is rather short lived. * * * I have to forego the luxury of space enjoyed by those who have acres at command. Still I am going to make this 50 x 190 ft. lot a healthy home for 200 fowls. You will say that I shall fail, but I am bound to succeed."

Better make up your mind to be satisfied with less, and if you wish to breed good Barred Rocks keep not more than two or three dozen adult fowls. Have several small matings of good birds each year and keep a general flock of from one to two dozen cull hens and pullets to furnish you eggs for table, and hatch and rear the chicks, then give the growing chicks all the room possible. They need it.

Another New Farm Flock.

Mr. Burdett Hall, of Chittenango, N. Y., comes to the club representing a farm flock of 138 hens and pullets, mostly cross bred, with Leghorn blood predominating. A remark on the sheet attached to his record illustrates one of the difficulties of free range. They have been feeding the hogs with squash trimmings, and to prevent the hens eating too freely of squash seeds, which they think make hens sick when too large quantities are eaten, have been taking the edge off the hens' appetite by rather overfeeding of mash, with the result that many of the hens are too fat, and with the further result that the cost of food for the month is higher than it should be. On every farm where fowls are kept there should be provision made for such contingencies as this. When the feeding of one kind of stock will cause confusion in the diet of another, either one or the other ought to be shut up. The farm ought to have a poultry yard, anyway.

I observe that Mr. Hall also notes an unusual scarcity of eggs in his vicinity.

An Attack of Roup.

Mr. George writes, "What promised to be a good month, and a good beginning for the new year has turned out to be the most disastrous since I started in the business. As stated in my last report, I have moved, but my buildings were not moved for a month later, and all stock, old and young, was kept in a damp barn where no sun ever entered. The crowded barn, where about 200 old and young fowls were kept, and the weather cool though not cold, caused a case of roup, the first in my experience; and before I could stamp it out I lost 1 hen, 8 pullets and 10 cockerels, most of which I killed in order to protect the rest of the flock. There are no signs of it now, but it stopped the hens laying just when they were ready to begin."

Accounted For.

Mr. Pusey was at a loss to account for the small egg yield from his flock on range, as the hens appeared to be in laying condition. "I was very busy, hens very busy, and found my hired help very busy — gathering eggs 'sub rosa.'" Which reminds me of what a certain poultryman, whose name you probably all know, once said when I asked him what he thought of a certain very remarkable statement of individual laying. "Well," said he, "—— has a hired man up there who thinks everything of him. I wouldn't say that —— doesn't think the records all right, or that I did not think —— had taken from the nests every egg recorded. But that hired man thinks so much of ——, and knows that nothing on earth pleases him like big egg records, that it seems to me quite likely that the hired man makes it his business to see to it that if the hens are not doing as well as —— would want them to, eggs are provided from some other source—even if he has to go to the store and buy them."

At a State Hospital.

Mr. L. H. Le Baron, who is now in charge of the poultry plant established a few years ago at the Binghamton state hospital, Binghamton, N. Y., sends report for a flock of 40 Barred Rock pullets, and also offers to furnish reports for the year for a large flock of some 300 pullets if we want them. To be sure we do. Send reports right along. Mr. Le Baron's account of the growth of the plant there is interesting and suggestive, and will be published elsewhere in this paper or in the next.

In General.

Mr. Stockman continues reports for his pen of 13 White Wyandotte hens, and also will give records of a pen of 32 pullets of the same variety. These pullets were all April hatched, and are already paying for their keep. In September they laid 8 dozen eggs; in October 10⅔ dozen.

Mr. Daniel P. Lees, Ardmore, Pa., is another of last year's members who dropped out before the close, but is back again, I trust to stay this year through. I would like to suggest to Mr. Lees that if it is not possible or desirable to divide his flock, which consists of 15 Barred Rocks, 8 Wyandottes, and 6 Partridge Cochins, so as to separate the Cochins from the others, he will probably get as good gross results from the flock without the Cochins as with them running with the others. It is rarely possible to keep fowls of the Asiatic and American breeds in the same flock, and get good results from both.

Mr. Chas. Cotton of Olneyville, R. I., earned $3.06 on 18 Barred Rock pullets, time given them 16 minutes daily.

They Are Buff.

HOWLAND

HOWLAND'S Buff Wyandottes, bred from Boston and New York prize winners, are fowls that show up well in any company. Every bird vigorous and healthy. We offer a few good yearling breeding cocks, also cockerels and pullets in pairs, trios and pens, at reasonable prices. Satisfaction guaranteed. Send for circular.

Wm. O. HOWLAND, Cambridgeport, Mass.

THE SECOND ANNUAL EXHIBITION OF THE

KEYSTONE POULTRY, PIGEON And PET STOCK ASSOCIATION

Of Philadelphia,

Will be held at

The First Regiment Armory, Philadelphia, Pa.

From December 11th to 15th, inclusive.

SPECIAL CASH PRIZES, $1500.00.

All prize money paid on last day of show. Entries close Nov. 28, 1900.

EDW. L. WELSH, Pres., JAS. CHESTON, Jr., Treas., J. EMLEN SMITH, Sec'y.

720 Girard Bldg., - PHILADELPHIA.

EGGS THAT WILL HATCH

We make a specialty of eggs in large quantities for incubators, from either pure-bred or crossed stock and guarantee fertility. We have 23 varieties of land and water fowls, and a string of prizes as long as your arm. Send for large catalogue and prices. We can please you. Choice stock for sale.

D. A. MOUNT, BOX F, JAMESBURG, N. J.
The Pine Tree Farm.

PRIZE WINNING Barred PLYMOUTH ROCKS

1st PULLET 95 1-2. 1st COCKEREL 93 1-2
1st PEN 188 1-4.

SWEEPSTAKES

For 10 highest scoring birds in show at Amesbury, Mass., Felch judge. I breed and sell birds that win in largest shows in America, and can give as much value for your money as any man.

600 Cock'ls, Pullets, Cocks and Hens ready for breeding or exhibition. Prompt and careful attention given orders.

WHITE WYANDOTTES,

Dark egg, large red eyes, nice combs, and shape. Cockerels, $2 and $3.

F. E. COLBY, Bow Mills, N. H.

HYDRO Safety Lamp

FOR INCUBATORS

The only absolutely safe lamp. Gives a perfectly uniform heat. Entirely free from soot and smoke. Saves loss, oil and worry. The wick tube is surrounded by a water jacket which keeps the burner cool and avoids all danger. No matter what incubator or brooder you use you need a Hydro Safety Lamp. Highest endorsements.

PRICE FROM 75c. TO $2.70.

Send for free catalogue of all incubator supplies.

L. R. OAKES, Mfr., No 1, 6th St., Bloomington, Ind.

Bargain Sale.

A grand clearance sale of this season's breeders. Pairs, trios, and pens; yearling hens in any quantity. Barred and Buff Rocks; White, Buff, Silver, and Golden Wyandottes; R. I. Reds; Light Brahmas; Partridge Cochins; Black Langshans; Buff Leghorns; Black Spanish; Blue Andalusians; and Ancona. Young stock bred from my prize winners at bargain counter prices.

Have won over 300 premiums this fall.

HAZELMERE POULTRY YARDS, W. B. RICHARDSON, Proprietor. Knightsville, Cranston, R. I.

GINSENG—Book all about it 4c. Tells how to grow this great money maker. Write to-day. AMERICAN GINSENG GARDENS, Rose Hill, N. Y.

About Balanced Rations.

Editor FARM-POULTRY:—I was very much interested in the article, "How They Never Fail," in F.-P. for Nov. 1, and wish Mr. Durling would give us fuller particulars of his management of fowls for winter eggs. I would like to know what the mash is composed of, and what whole grains he feeds, and how, —also, how he feeds cabbage. It seems to me that it is a good idea to keep green cut bone and skim milk constantly before the fowls, as it balances the whole day's food better. Where a balanced mash is fed once a day, and whole grain a part of the day, there is nothing to balance the grains,—as most of the grains generally used are one sided—so the fowls do not get balanced food all day, but only when eating the mash. Now if green cut bone and skim milk are constantly before them, naturally they will eat more or less of both during the day, and they will be in the crop with the whole grain, thereby balancing the grain. Of course if cabbage is before the fowls at all times it would help balance the daily food a little.

I intend to feed in the morning a mash containing one-third clover meal, equal parts wheat bran, wheat middlings, corn meal, ground oats and B. B. B., and keep skim milk and cabbages constantly before them. Now I want to balance the grains which I will feed at night, equal parts corn, wheat, barley, oats and buckwheat. What is the best to do:—feed a *small* feed of green cut bone at night, or feed sunflower seeds, Canada field peas, or small white beans with the other grains used?

C. H. PERRY.

I fear Mr. Perry has absorbed some very unpractical ideas about balanced rations. It is not necessary that every day's ration or every meal of the fowl should be exactly balanced. In fact, it is utterly impossible to determine what would be a balanced ration — exactly adapted to the needs of the fowl at any stated period. I have a pen of thirteen Light Brahmas, procured about the middle of October. They are all young, some rather late hatched, all in rather poor flesh when received; none showed any promise of laying soon. Four weeks of heavy feeding, under conditions which cannot be excelled, has put a pound and a half to upwards of two pounds on each of them, making them big heavy chickens, and several of the pullets promise to be laying soon. In the morning they get a mash one part corn meal to two parts heavy bran (bran and shorts—bran predominating), and sometimes a few scraps from the house; and I scatter wheat liberally among the leaves on the house floor and more sparingly on the ground (grass) outside. At noon they are given the scraps from the breakfast and dinner table, (what they had in the morning came from the supper table), but the supply of scraps is rather scant, for the dog and cat have first choice. Late in the afternoon someone from the house gives them a feed of cracked corn, scattering part of it, and leaving part in a dish where they can help themselves. For green food they have grass; for animal food what worms and bugs they find. Later both will have to be supplied; but what I am coming to is that corn meal, bran and middlings, cracked corn, and wheat is the full list of my poultry foods, and in the grain line I consider it *all that is necessary*.

Instead of being "one sided," the grains most commonly used for poultry food are very nearly balanced rations, so nearly so that it is possible, when the *manner* of feeding is right, to feed corn, wheat, oats, or barley almost exclusively for a very long time with good results. This correspondent is making a great deal of unnecessary worry for himself over the chimerical problem of balancing rations. The common sense thing for him to do is to let the "science" of feeding alone until he has learned how to feed by some good poultryman's *rule*.

Two Troubles.

Editor FARM-POULTRY:—This is my second year with poultry. Last year I had very fair success in a small way. This year tried incubators—hatch poor, etc. I have two things that worry me very much.

First, my chicks have not grown as they should, do not lay on fat, are not fit for market at this date. I gave a friend a sitting of eggs. He reports 10 chicks from 13 eggs, and of these one cockerel at five and a half months old, weighing 7½ lbs., and several at 6, 6½ and 7 lbs. This proves to me that my parent stock is O. K., even if my own chicks of same age are weighing only 4 to 5 lbs. each.

My next trouble is the death of some of my friend's stock. They droop around, refuse to eat, and seem to waste away. I cannot discover any swelling or external symptom of disease. One valuable hen actually would lay when she was so weak as to stagger. Pick her up and she was light, just wasted away.

I have been reading the article on roup in the last number of F.-P., and think I have some birds troubled with it. Can you give me from my meager description any idea of what causes the trouble in the cases stated?

E. W. S.

The condition of Mr. S.'s chicks is probably due to some fault or faults in operating incubator or brooder — conditions while not bad enough to kill the chicks, were bad enough to make them very poor chicks. Just what went wrong could hardly be discovered now. He may hope with added practice in artificial methods to do better next season. With regard to the cause of the trouble in his friend's flock, that could not be determined except on examination of the birds, or a very full statement of conditions and symptoms. The wasting away is characteristic of several diseases, such as tuberculosis, bacterial enteritis, and "going light," when that is not merely a symptom of one of the diseases just mentioned. If Mr. S. were to look up these diseases, the descriptions of symptoms and conditions which operate to produce them might help him to correct diagnosis in the cases in which he is interested.

MARKET REVIEW.

BOSTON.

Eggs.—Nearby and fancy 40@45c.; eastern 30@35c.; choice Michigan 28@30c.; fresh western 27@28c.; storage 19@20c.

Dressed Poultry.—Fancy northern turkeys 15@18c., western 12@14c.; fresh chickens, fancy 16@18c., ordinary 12@16c., iced chickens 10@12c.; fresh fowls 11@15c., iced fowls 10@11c.; spring ducks 11@12c.

Live Poultry.—Fowls and chickens 8@9c.

NEW YORK.

Eggs.—Fancy fresh 35@40c. and up, strictly fresh western 26@27c., average 24@25c., poor 21@22c.; fancy April refrigerator 19½@20c.; limed eggs 18c.

Dressed Poultry.—Fancy western spring turkeys 10½@11c.; ordinary 7@9c.; old turkeys 9@10c.; western roasting chickens 9@9½c.; fancy broilers 16@18c., good 15c., ordinary 11@13c.; choice fat young ducks 10@11c.; do geese 9@10c.

Live Poultry. — Fowls 8@8½c.; chickens 7@7½c.; old roosters 5c.; turkeys 8c., ducks 50@65c. per pair; geese $1@$1.37½ per pair, with extra choice fattened above quotations.

PHILADELPHIA.

Eggs.—Penna. and nearby fresh 27c.; western fresh 26c.; southwestern fresh 25c.; southern fresh 24c.; refrigerator 18@19c.

Dressed Poultry.—Fowls, western choice 9½c., fair to good 8½@9c.; old roosters 7c.; chickens, nearby choice 11@12c.; western, dry picked, fancy 11c., choice 10c., fair to good 8@9c.; spring turkeys, good to best 9@11c., common 7@8c.; ducks 9@11c.

Live Poultry.—Fowls 8@9c.; old roosters 6½@7c.; spring chickens 8@9c.; spring ducks 9@10c.; turkeys 9@10c.; geese 9@10c.

CHICAGO.

Eggs.—Firsts 23@24c.; city candled 21@25c.; storage fancy April 17½c.; summer packings 15@16c.; country candled 20@20½c.; seconds, fresh 12@14c.

Dressed Poultry.—Turkeys, dry picked selected 9c.; culls 6@7c.; fowls 7c.; springs 7½c.; ducks 8@8½c.; geese 6@8c.

Live Poultry.—Turkeys 6@6½c.; fowls 6@6½c.; spring chickens 6c.; roosters 4½c.; ducks 7½c.; geese per doz. $6@$6.50.

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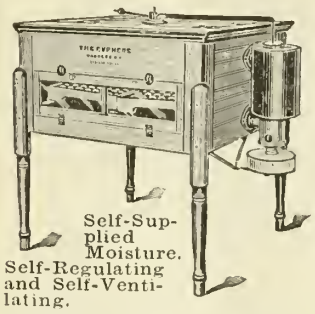

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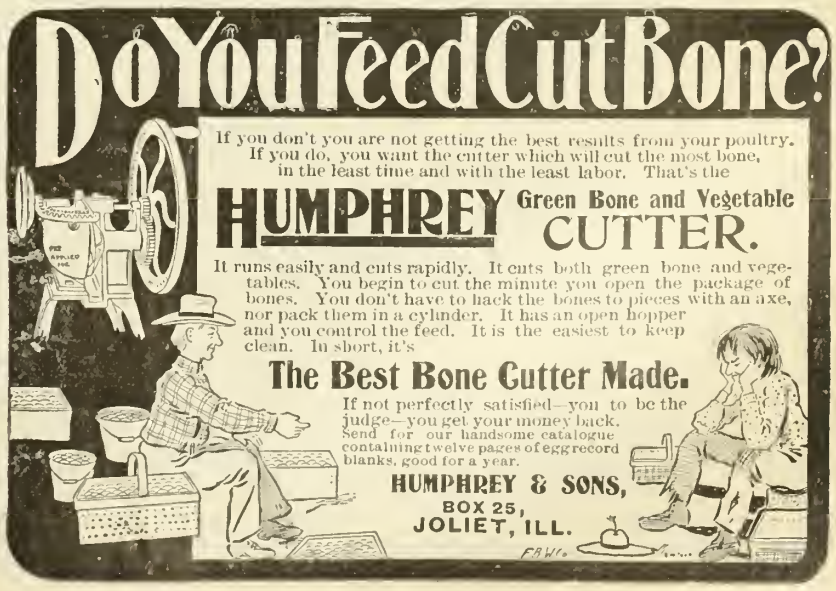

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HUMPHREY Green Bone and Vegetable CUTTER.

It runs easily and cuts rapidly. It cuts both green bone and vegetables. You begin to cut the minute you open the package of bones. You don't have to hack the bones to pieces with an axe, nor pack them in a cylinder. It has an open hopper and you control the feed. It is the easiest to keep clean. In short, it's

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EDITORIAL.

An Exhibition of Poultry Literature and Art.

To give as much of the public as visits or reads of the Boston poultry show an adequate idea of the extent and importance of the literature devoted wholly or in large part to domestic poultry, FARM-POULTRY has undertaken, with generous coöperation of the publishers of poultry journals and books generally, to get together, arrange and properly display as complete a representative collection of poultry literature and art as can be made. The exhibit will be placed in one of the smaller halls in the Mechanics building, and as we are already assured of the cordial assistance of a large number of the other publishers, we think that we may promise those who see it a display, which in instructiveness and attractiveness will not be surpassed by any other feature of the show.

The projected exhibition will include:—

1. Copies of all poultry papers now published, and also of papers now discontinued which lived long enough to be of importance in their time.

2. Copies of all books and pamphlets relating to poultry—except such as are issued solely or primarily for advertising purposes, and experiment station and government reports.

3. Copies of experiment station and government bulletins relating to poultry.

4. Specialty club catalogues (or circulars when no catalogue is issued).

5. Premium lists of poultry shows.

6. Breeders' cirrulars and cards. For this display only such as are of pronounced artistic advertising merit will be accepted, as such alone will make a large display.

7. Poultry illustrations, including original drawings, rough sketches, oil and water paintings, and reproductions of same, and also collection of choice photographs.

The attention of individual poultrymen is called especially to classes 2, 6 and 7. We would like to have each one who has a collection of books, or who has in his possession any rare works on poultry which he would be willing to loan for this exhibit communicate with us, telling us what he has. Do not send us the books until advised to do so, as we wish to so arrange that there shall not be duplicates sent us. Also those who have circulars, cards, photos or sketches which they think would add to the display in these classes are invited to submit them. All such exhibits will be displayed with proper credit to the persons loaning them, and at the close of the show will be promptly returned to the owners. Articles in class 7 submitted but not used will be returned at once.

Let us make this exhibit of poultry literature and art a credit to the poultry press, and to all poultrymen. Nothing of the kind has ever been done before. The poultry press has not lived up to its opportunities to make itself known as a collective force. It is most fitting that this first step in this direction should be made at the first great poultry show in the new century.

Poultry Associations — On Both Sides of the Sea.

In *Poultry*, Nov. 9th, we find a contribution from Mr. W. M. Elkington, entitled, "The Poultry Club and Its Policy," which shows a condition of things in organized and unorganized poultrydom very similar to that which exists over here. Mr. Elkington says:

"Just at the present time that much criticised body, the Poultry Club, has reached the point when the decision of its members must either make or mar it in the eyes of the poultry world. To be candid, the club has not been a success, such as its supporters desired. Though I consider the time for criticism past, we cannot blind ourselves to the fact that the policy of the club in many matters has not been a popular one. The outcry against it has been that it is not representative; and it has further been said that the management of its affairs is in the hands of a small body of gentlemen who, though they have the interests of the club at heart, have not a sufficient knowledge of the entire fancy to make their institution the power that it should be. For no one can deny that a poultry club is absolutely necessary. If there were no opportunities for fraud, and a complete agreement upon all matters among persons connected with the fancy, we should consider such a club superfluous. But knowing as we do the complex difficulties of the poultry world, the thousand and one matters of greater or less import that should be referred to a supreme tribunal, and the ever recurring danger of the fancy being overwhelmed by sharks of the money grabbing type, we realize that a representative poultry club has a more brilliant career before it than even its first friends dreamed of.

"I am not minded to attempt to disparage the work of some of its officials; yet I venture to say that the operations of the club, compared with what they should have been, have so far been lacking in value. The popular outcry has correctly estimated the situation, and the club has not been representative."

And there is another paragraph which recalls the debate in the American Poultry Association meeting at Boston, three years ago, on the motion to amend the constitution, to do away with life memberships, and make the initiation fee five dollars, and annual dues fifty cents.

Now as a plain business proposition this would have been preferable to the life membership plan, if the association had in it any real life or confidence in its ability to retain the active interest of such members as it secured, but it met with general opposition. One member said, "I do not believe in cheapening the membership of this association. We do not want a fifty cent membership;" another, "I am of the same opinion, Mr. President. I do not believe this association is a fifty cent association. We have all paid our ten dollars for membership in here." Such talk seemed to an outsider to show an utter inability to grasp the details of a very simple situation, or else an effort to obscure the question, for it had not been proposed to make it "a fifty cent association," but the amendment was rejected apparently through fear of cheapening the association. It would have been well had there been some members of the association present who would present the view of that question which Mr. Elkington offers British fanciers in these terse and forcible words:

"Again I have said that the poultry club should be thoroughly representative; and as the fancy includes many to whom the sum of 10s. a year is formidable, I contend that the subscription should be put as low as possible—indeed, the suggested minimum of 5s. is just what many good fanciers could afford, and would be willing and happy to pay. I once heard it said that such a low subscription would vulgarize the club. I hardly know the meaning of that term, but if it is intended to imply the admission to the management of the club of all sorts and conditions of men, then it is by far the best thing that could happen. We need all kinds of men as members of the poultry club, for the fancy is by no means a select body. We have all classes, from a princess down to a cottager, and the best recommendation the poultry club can have is a membership that includes representatives of all those grades. The club will not suffer in consequence. It will be none the worse if some of its members are unable to write their names; on the contrary, it will have the confidence of the fancy, and will be looked up to and recognized by all as the supreme tribunal and the governing body of the exhibition poultry world."

We commend that view of the case to those interested in the future of the American Poultry Association. We were about to write "to the powers that be" in the association, but recalling a brief paragraph from the pen of a contemporary editor who is a member of the association, it struck us as quite out of place to associate the word power with any effort of the association in its present condition. The paragraph to which we allude is this, from the *Reliable Poultry Journal* for September:

"At present the American Poultry Association stands for but little, and does still less. It isn't an out an out failure, for apparently the sole reason that it undertakes nothing. How about it, officers and members of the association, is the existence of our national association worth while, or isn't it? Have we the sense and sand to do something, or haven't we? Isn't it about 'up to us?' Surely it is a fortunate state of affairs that we have no competitor in the field. If we had—a real one—he would put us 'out of the business' without half trying."

Study Your Subject.

"One thing at a time,
And that done well,
Is a very good rule,
As many can tell."

One trouble with too many poultry keepers is that they are trying to study too many phases of the subject of poultry keeping at the same time. The result is that they make very slow progress in them all. They do not concentrate their thought and effort on any one subject long enough and earnestly enough to enable them to master it. They spread themselves out too thin, attempt too many things, and accomplish nothing worth while.

The novice, the person who cannot rightly be said to have a satisfactory working knowledge of the elementary things in poultry culture, whether he is a beginner or only a persistent failure, will find it worth a trial at least, to ignore for the time other questions, and make an effort to attain a mastery of some one matter in poultry keeping.

What should demand his first attention is the matter of feeding for eggs, which, when properly done, consists in keeping hens producing fairly without loss of condition. He would find the two articles on "Winter Work With Layers," which appeared in the issues of this paper for Nov. 15, and Dec. 1, 1899, and also the symposium on "Getting Winter Eggs," in the Oct. 15, and Nov. 1, 1900, issues of very great value to him.

The student of breeding problems, and every poultry keeper who expects to accomplish anything substantial as a breeder of either practical or fancy fowls must familiarize himself with the principles of breeding, will find much to instruct him in articles which have appeared in this paper within a year. Of articles of general character we had one on the "Principles of Breeding," in the issues of Dec. 1 and 15, 1899, and one entitled "Hints to Breeders," in the Jan. 1, 1900, number. Then there was that very able article on "The Color Problem," in the April 15 paper, and a number of special articles, "The White Leghorn," Jan. 1; "The White Wyandotte," April 1; "The Buff Cochin," May 1, etc., which the breeder who has carefully studied out will find have enabled him to work more intelligently, and with greater assurance of getting the results desired.

So we might go on and point out where, in the volume just closing, readers would find articles bearing on particular subjects, but these illustrations are enough for our purpose, —to impress on those beginning to be interested in these various topics the opportunities which back numbers offered them for following up a subject more exhaustively than is possible when they take only what is given them in current numbers. The number of subjects treated in a poultry paper is so great and there is such a variety of interests to be consulted that a complete treatment of any important matter must be distributed through many months, or even years, and thus the reader specially interested in a subject, is apt to think that his subject is not receiving the attention it merits even though (as has sometimes happened) that subject is really receiving a little more than its due share of space. So on the contrary a reader is apt to assume that a subject which does not interest him is receiving a great deal of attention, when a count of references would show it not mentioned half as often as the one he considered neglected.

The index which will be published in the next number, the last of this volume, will be a valuable guide to those who have preserved the numbers of the paper composing it. New subscribers who want special information on any topic would do well to consult it, and if they find topics suggestive of information they want, make inquiry about it. We are always ready to advise readers where to look for information of value to them. As fast as we can arrange for and find space for articles on the many subjects to be considered we are publishing them, but sometimes delays are unavoidable, and a topic recently treated cannot be gone over again very soon. As our paper is printed from plates, we are always able to supply back numbers of an issue for which there is a demand.

Editorial Notes.

Persons who want to know where rare varieties of fowls can be procured, should watch the show reports. The demand for many of these varieties is so limited that it does not pay those who have them to advertise them regularly, if at all. We are constantly receiving letters from people who want varieties which they do not find advertised. To all such we say keep watch of the show reports. Though many of those exhibiting rare fowls have none to sell, any of them can, probably, tell you where stock may be purchased.

The Pennsylvania coal strike spoiled at least one poultry show. Business depression following the strike caused the Scranton Association to declare its show off, rather than take the risk of its not being fully successful.

And now the usually respectable *Poultry Herald* has side stepped into the ranks of the plagiarists. Its November issue contains uncredited the article, "Danish Poultry," from our issue of October 15th. Presume it was a case of careless editing. Didn't happen to notice that the article was only in part a translation.

In England the dairy show fell behind this year in number of entries. At the Crystal Palace show, entries, according to the *Feathered World*, are 256 ahead of last year on poultry, 59 behind on pigeons. We rather anticipate that there will be some record breaking done on this side. Wyandottes, by the way, stand second in number of entries at the Palace (two years ago they led, and last year were second); White Plymouth Rocks show quite a falling off.

A subscriber asks, "If anyone should write up his experience, would it cost anything to publish it in your paper?" Well, that would depend. Except in very rare cases we do not pay for contributions of that character. We publish possibly one-tenth of those of fair merit offered us. If his experience seemed of ordinary general interest we might publish it if it happened to come seasonably, and would not trespass on better matter, but would pay nothing for it—because we get many times what we are able to print of that class of matter for the taking. If it contained something uncommonly good we would pay for it. If it did not strike the editor as available on the above basis, it would cost him regular advertising rates, cash with the order, to have it printed.

We think that the statements recently made as to the amount of shipments of Prairie State incubators to Boston, and in this issue as to the volume of the trade of the Cyphers Incubator Co., will begin to give our readers just a faint appreciation of the extent of this adjunct of the poultry industry which has sprung up, one might say, within a decade,—for previous to 1890 the incubator and brooder business was very small in comparison with its present vast proportions. These two companies are doing a big business in Boston and elsewhere. There are others also doing a large business, and a number of others rapidly extending operations. It is certainly a very remarkable thing (showing clearly a wonderful boom in the use of artificial methods), that with all the machines that have been brought in here not one of the agencies has been able to supply the demand. The writer had occasion to call at the agency of the Star incubator one day last March, and heard the same complaint there, "We can't begin to get machines fast enough."

Mr. Cushman's remark on the need of mating geese early is all right, but we don't like his comparison of geese and hens in that connection, because we think it equally important that hens be mated early. There is not, to be sure, the danger of utter failure for the season when hens are mated late, but the gist of experience is that more satisfactory results are generally obtained from breeding pens of fowls selected and mated several months before the time when eggs are wanted for hatching.

Mushroom Commission Houses.

Those making a business of shipping poultry or other produce throughout the entire year keep pretty well in touch with the conditions at the markets they patronize, and are rarely caught by irresponsible firms, but many shippers, and particularly of poultry and game, send stock to market at holiday times only, or during a short period in the winter. These are the "lambs" that the dishonest commission men try to "fleece," and this is the time of year which they select to do it. The methods employed by these firms vary, but all have liberal inducements to catch the shipper. Some of them manage to keep within the law by making small returns, while others buy stock outright, and thereby escape the law relative to the commission business, operating in such a manner that the shipper who is robbed has redress only by civil action; and even if the cases are won there is little chance to recover anything. One method often employed is to advertise extensively in country papers throughout the shipping districts, agreeing to pay for such advertising quarterly, or by giving notes, and before the period arrives for paying same the holidays have passed, the shippers have sent their poultry, and the receivers have cleared out or moved to another part of the city to operate under new names. These papers are such a distance from the market that they rarely look the firms up, but run their ads. and talk nice about them in their news columns, whereby the farmer is led to give them a trial.

There are plenty of first class and honorable commission merchants in New York to whom goods may be consigned with assurance of receiving in return their full value, and shippers should satisfy themselves fully as to the standing of a house before consigning.—*N. Y. Produce Review.*

ANSWERS TO QUESTIONS.

THE OBJECT OF THIS DEPARTMENT IS TO HELP READERS OF THE PAPER IN EMERGENCIES. It is a short order bureau of information.

Correspondents who ask for information or advice in matters requiring prompt attention, will be answered in the first issue of the paper made up after their inquiries are received. If inquirers will keep in mind that THE FORMS FOR AN ISSUE BEARING DATE OF THE 1ST DAY OF A MONTH CLOSE ON THE 20TH OF THE PRECEDING MONTH, and THE FORMS FOR AN ISSUE BEARING DATE OF THE 15TH DAY OF A MONTH CLOSE ON THE 5TH DAY OF THAT MONTH, they may know just how soon replies to questions can reach them through the paper.

IN CASES OF SPECIAL URGENCY THOSE WHO ENCLOSE STAMP FOR REPLY WILL BE ANSWERED PROMPTLY BY MAIL.

Correspondents whose questions do not come within the scope of this department as outlined above will be referred to the most recent available information in line with their inquiries.

BE SURE TO SIGN YOUR LETTER. WRITE YOUR NAME AND FULL ADDRESS VERY PLAINLY.

Average Egg Yield. (A. P. J.)—I don't know "the largest number of eggs a pen can average per year."

Hens Have Colds. (A. E. D.)—The article on "Colds and Roup," in last issue of this paper, covers your questions.

Salt to Help Molting. (A. P. J.)—Think it doubtful whether salt has any special virtue for molting fowls. Fowls need a seasoning of salt with their food regularly.

Full Crops. (H. G. E.)—I do not understand your question. If your hens eat well the crops must be full after meals, and for some time after meals of hard grain.

Chicks' Legs Dry Up. (W. H. M.)—This condition may be caused by overheating the brooders, or may be due to weakness in the chicks. I have seen it in some individuals in broods of chicks with hens.

Black Narragansett Turkeys. (Mrs. F. A. P.)—There are Black turkeys and Narragansett turkeys, but not *Black Narragansett* turkeys. The Narragansett turkey is *gray*, and the standard weights are greater than for the Blacks.

Hens Cannot Lay. (A. P. J.)—It would be impossible to determine what affects your hens which for some months have visited the nests regularly and strain but pass no eggs, without an examination, and therefore, of course, impossible to prescribe for them.

Don't Throw Away Dead Fowls. (G. F. S.)—When you kill a diseased fowl bury deep where it will not be unearthed by other fowls or by prowling dogs, or else burn. Don't throw any dead fowl away, much less a diseased one.

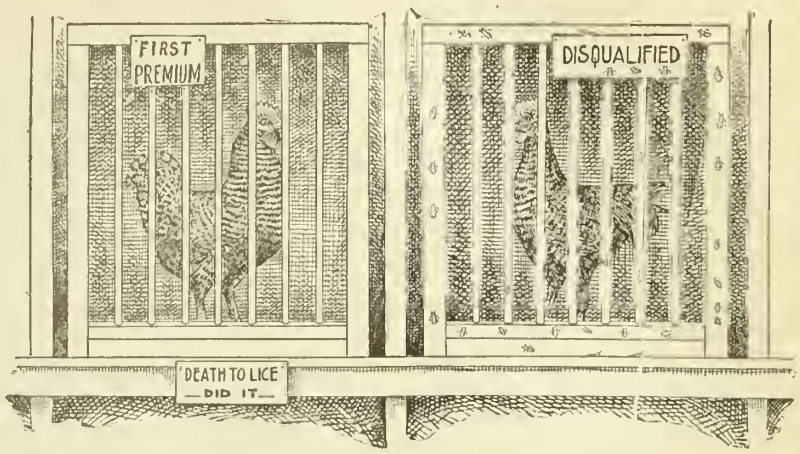
Apples. (C. H. C.)—Apples make a good green food for fowls; as much as they will eat of either sweet or sour apples may be fed. But apples do not make a complete substitute for such vegetables as cabbage, turnips, beets, etc., for the solid elements of apples are almost wholly heat and fat producing.

Chicken Pox. (J. R. S.) — From your description of the "sores" on the head of your cockerel it appears that he has chicken pox. Bathe the head and face frequently with soap and warm water, and anoint with carbolated vaseline. What is known as "veterinary vaseline" is a good thing to keep on hand for fowls.

A Leg Band That Will Stay On. (H. E. S.)—Any of the leg bands I have seen or used will stay on if the band is of the proper size for the fowl, and if it is not spoiled in putting on. Too often people either use bands that do not fit or pull them all out of shape trying to put them on, then trouble follows.

Best Incubator. (G. B. S.)—You will have to decide on the merits of incubators for yourself. There are as many different opinions as there are incubators. There is probably no machine made that is not doing good work in someone's hands, and none that is not doing poor work in the hands of a great many persons. The operator counts for fully as much as the machine. Whatever machine you buy you must expect to make some mistakes with it at the start.

Dust Bath. (J. F. R.)—A shallow box, say 30 in. or more square, makes a good dust box; or if convenient, one may be made in a corner of the poultry house by nailing two



The Mere Fact

Of a bird having Death to Lice put on him does not necessarily cause him to win first premium, but the fact of his being lousy for any length of time would put him in such a poor condition that he would not stand a ghost of a chance in good company. This remedy will not make winners of culls, or show birds of mongrels. It will, however, make *the best* better, cleaner and brighter.

It Never Injures

Anything but vermin; it will not soil or discolor the finest plumage or shanks, but on the other hand will remove any grime or smutch from the feathers. It will also destroy bad odors around the coops and buildings, thus warding off distemper and disease. This Death to Lice Powder was placed on the market under the above name in 1882, and the demand has steadily increased, and countless testimonials have been received as to its efficacy. This

Is Sufficient Proof

That our efforts at louse killing have been appreciated. We have neglected no opportunity to make these remedies the best in the market. Powder for body lice on large chickens, fowls, and all kinds of exhibition poultry, 15 oz. box, 25c.; if by mail, 40c.; 48 oz., 50c.; 100 oz., $1.00 by express from here or nearest agency to you, buyer paying express charges. Ointment for head lice on chickens or children, also scaly shanks on fowls, 10c. and 25c. postpaid. Special for mites and spider lice in henneries, 10c. and 40c. by mail postpaid. Samples of all three, 25c.

Pocket Book Pointers for 1901

Will consist of 100,000 copies, and will be ready for distribution in January. It is our design to have this book excel all previous issues. If you are interested in its advertising pages send for prospectus. If you have never received it for 1900 say so, and we will mail you one; only a few left.

D. J. LAMBERT, Box 800, Apponaug, R. I.

narrow boards together to form the two outer sides, the inner sides being formed by the walls of the house. For the dust bath I prefer dry earth containing a large proportion of fine sand. Road dust is good if from a road not so much traveled that a large part of the dust is manure. Dry coal ashes are also good.

Tough Yolks. (J. H. F.)—Mr. F. wants to know why the eggs laid by his hens have such tough yolks. The only way he can account for them is on the supposition that it is due to cow peas which are growing in their run, and of which the hens are supposed to have eaten freely. I have never fed cow peas, hence have had no opportunity to observe effects, if any unusual, of feeding them; but I very much doubt this being the cause, though I am not able at present and on the information furnished to suggest an explanation.

Weights of White Rocks. (I. G.)—A White P. Rock cockerel of good sized stock, and well grown for its age, ought to be, if in good condition, of the weight required by the Standard (8 lbs.) at seven to eight months old. Roughly speaking he should weigh about a pound for each month of his age, and a pullet about three-fourths of a pound for each month of her age. Such specimens will be better in weight than the average of the breed. Of course birds out of condition might have the same for this weight, but lack the weight. May hatched Rock pullets should begin to lay in November or December.

Shall He Keep Them or Sell Them? (H. B.) — Mr. B. writes: "Having on hand about 100 Barred P. Rock pullets which were hatched in June, and now weigh about 3 lbs. each, I would like to know if it will pay me to house them all winter, as I don't think they are doing well, and I have a chance to sell them at 30 to 60c. each. The reason I write is because I am doubtful whether I can get them laying before well in spring, and will have to buy eggs to run my incubator, anyway." If he can get an average of 45c. each for these pullets that is $45. With this sum he could buy from 30 to 45 pullets nearly ready to lay, if not already laying better now than it is likely these late hatched chicks will ever be.

Starting Sod in Poultry Yard—Double and Triple Yolked Eggs. (J. L.)—Mr. L. wants to know how many hens he can keep in a yard 30x100, now bare, while getting a start of grass on it. Better keep the hens out of it until the grass gets a good start, otherwise a very few hens can keep the grass back on quite a large area. If you cannot give the hens another yard, divide by a cross fence about 30 ft. from the house, and keep the hens in the small yard until the grass makes sod in the other. The pullet which lays double and triple yolked eggs may stop it and lay only single eggs after she has been laying a little while, if not you had better kill and eat her. I know of nothing the poultry keeper can do to prevent the eggs coming this way.

Scaly Leg. (G. F. S.)—Scaly leg is caused by a mite (*sarcoptes mutans*) which burrows beneath the scales on shanks and toes of fowls producing irritation and causing the deposit which gives the disease the name by which it is commonly known. It is contagious, though some fowls seem immune. For treatment wash the legs thoroughly with carbolic soap and warm water and dip in a mixture of raw linseed oil, 2 parts, to kerosene oil, 1 part, holding the feet in it long enough to allow the oil to penetrate under the scales. Two or three days later repeat the treatment, first brushing the affected parts briskly with an old tooth or nail brush to remove loose scale. Continue treatment at intervals of two or three days until the skin is clean and smooth. The removal of the scale is hastened by increasing the proportion of kerosene oil, but this is apt to make the foot sore, and it is better to use the more gentle remedy and take more time.

Size of House Required—Basement House. (H. G.)—Your questions "scatter" so that it is not easy to give direct replies to them. For raising young chickens you would not need houses at all; if reared by the natural method, coops for the hens and then roosting coops are all that would be required; if by the artificial method, out door brooders would be used at first, and later roosting coops. The number that could be reared on a lot 60x75 would vary according to the vigor of the stock and the care given them. I would not want over 40 or 50 on that space if the chicks were intended for stock birds or layers. A half-basement house is not desirable unless the "lay of the land" makes that construction practically necessary.

Cost of Beginning With Ten Hens. (A. S.) A house for 10 hens should be about 8 ft. square, and high enough for a man of average height to stand erect in it in the middle. Such a house built of rough cheap lumber and covered with building paper could be built at a cost for material of $8 to $10. Give all the yard room you can. If you have small yards you must provide more green food and more animal food than when fowls are on range. An examination of the table published in the last number of this paper will give you an idea of some of the differences in cost of feeding fowls. Roughly estimated, the average cost of keeping a hen a year is $1, and the net earnings on each hen, with a fair average egg yield about the same amount, $1. Probably the reason you could not get a satisfactory answer from any of the many poultry keepers to whom you propounded the questions sent me, is because the questions cannot be satisfactorily answered in brief—to properly understand the answers given you, you must have a pretty good general idea of the subject, this you can only acquire by familiarity with it. Answers which seemed insufficient to you now would be plain then.

Chicks Have Bloody Discharge. (H. V. M.)—Mr. M. asks what is the trouble with his flock of small chicks, about two and a half weeks old, which have been doing well (in outdoor brooder), but within a day or two of date of his letter began to have bloody diarrhœa and to neglect their food. He feeds "chick manna," wetting it with warm water, four times a day, and of late has been finding the greater part of the food given at one feed in the trough when he goes to give the next. It seems likely that the food left in the troughs has soured, and when eaten in small quantities, the effects of overfeeding being already at work, has caused gastritis. When prepared foods of this kind are wet for chicks, all that is not eaten up clean in a few moments should be removed and given to old fowls, or older chicks of more robust digestive powers. Chicks seriously affected in this way are not likely to recover quickly enough to make good chicks. When the trouble appears, a good plan is to feed sparingly of such foods as cooked rice, milk, and cooked lean meat until the chicks come to their appetite again. In this instance, the trouble may have been aggravated by the chicks not having been kept quite warm enough. The brooder was run at 90 degrees,—not definitely stated whether that was the temperature at the start. If it was, a lessening of vitality in the chicks was to be expected, and this perhaps was the real beginning of the trouble.

S. D. G. Bantams—Dubbing. (B. S. F.)—The time for dubbing the combs and wattles of Games and Game Bantams is when these have ceased to grow. The operation is not dangerous if properly performed, nor do I think a common sense view of the matter can regard it as an unnecessary cruelty. The case is thus put by Mr. Lewis Wright in his "Practical Poultry Keeper:" "It is not improbable that, as the fowls are bred for generations purely for the show pen, without any reference to fighting, the necessity for dubbing the exhibition variety may die out. But at present, all who actually breed the fowls consider it necessary; and it is indeed almost impossible to keep them without it, unless every cockerel can be kept separate, which is difficult, owing to their great flying capabilities. If they do meet, as a Game cock is so built that he strikes with his spur wherever he holds with his beak, the result to an undubbed bird is either death or terrible suffering, as has been proved over and over again, even from a very few seconds encounter; whereas dubbed ones can generally be separated before much injury is done. In these circumstances hot abuse of the practice by those who know nothing about the matter shows more zeal than discretion."

The only place you can get the Silver Duckwing Game Bantam standard is in the American Standard of Perfection. For requirements for entering specimens at the Boston poultry show, write the assistant secretary, Mr. Arthur R. Sharp, Taunton, Mass. The Standard requires the comb of an adult male to be trimmed, but doesn't require the comb of the cockerel to be trimmed — though the presumption is that if the cockerel has reached or passed the proper age the comb should be cut.

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Exhibition Records

Have won for years, and this year is no exception.

Because they are

Bred from Winners, Mated Properly.

Show reports of Boston, New York, Hagerstown, Philadelphia, Worcester, New Haven, Hartford, etc., will tell you part, my catalogue all. Then I breed for

Great Egg Production

From line bred stock for the past 12 years, and with an end in view, — viz. eggs; that's what makes poultry pay. My efforts have not been in vain.

MALES, $2 to $5. FEMALES, $1.50 to $3 each.

ELM POULTRY YARDS, Hartford, Ct.

Breeder and shipper of exhibition also line bred layers. S. C. White Leghorns; S. C. Black Minorcas; Barred Rocks; White Rocks; White Wyandottes; and Light Brahmas.

State Agent for the Star Incubator & Brooder Co.

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OUR REQUESTS:— *We make two requests of our Subscribers.* **One is** *when writing our* **Advertising** *patrons* **always mention** *FARM-POULTRY.* **Another is** *if you ask them questions, always inclose a stamp. If you observe both of these requests it will benefit you amazingly. It shows that you mean business.* **Remember,** *"Molasses will catch more flies than vinegar," and those who observe it are served first.*

A BAD WICK—poor batch. Sunlight Carbon lasts 20 times longer than ordinary wicks. Sample 10c. Best on earth; clear white light. S. G. Robinson, printer of F.-P., 257 Atlantic Ave., Boston, Mass.

A BARGAIN—100 fine Barred Rock cock'ls and pullets, at right prices, bred from winners at New York and Boston. F. A. Quimby, East Rochester, N. H.

A BARGAIN. Giant Brahmas, W. Leghorns, Blue Barred Rocks. C. B. Travis, Brighton, Mass.

ANOTHER BARGAIN. 25 Rose C. Bl. Minorcas, hens and pullets, Northup direct, $1.50 each; one cock'l, $2.50; one show cock, $5; fine S. C. and R. C. Br. cock'ls and females. Bar. Rocks of finest blood. A few large Pekin ducks, $1.50 each. They are extra fine. Belgian Hares. Grand White and Buff Leghorns. Duston Wh. Wyandottes, big, pure stay white. Fine Buff Wy. cock'l. W. W. Kidp, Box 40, Pottstown, Pa.

BIG MAIL for poultrymen. Insert your name in our Poultry Directory, and receive poultry papers, poultry catalogues, etc., every day. Only 10c. silver. Poultry Directory Co., Goshen, Ind.

FOR SALE. Stock and good will of trade of my R. C. B. Leghorns, including my Boston, Brockton, and Peabody winners; also the cock winner of 1st at Phila., and 2d at Chicago last winter. I have a few fine Buff Wyandottes for sale. Geo. A. Knight, Peabody, Mass.

100 R. C. Brown Leghorn hens, 75 W. P. Rock hens and pullets for sale. F. M. Harroun, Spencerport, N. Y.

ROSE C. B. Leghorns specialty, winners of first honors at ten successive shows. Stock for sale. J. L. Randolph, Cutler, Ohio.

SILVER Wyandottes, the best laced females in the U. S. Atherton; very strong in laced wing bar. Laced secondaries "ahead of the standard," Hewes, with nicely laced buff and hock. Unparalleled show record. Pure English stock for one half what they would cost in England. Satisfaction or no sale. John C. Jodrey, Danvers, Mass. P. H. Gossard, Mo. Valley, Ia.

WHITE WYANDOTTES exclusively. Pullets began laying before five months old. If you want a fine cockerel from this stock, write to P. D. White, North Attleboro, Mass.

WHITE WYANDOTTES. A fine lot of cock'ls, pullets, and yearling hens to select from for breeding and exhibition. Buy early and get the best. Satisfaction guaranteed. Write describing what you want. J. W. Andrews, Dighton, Mass.

WHITE Wys., 200 pullets from 75c. up; also 50 cockerels. F. W. Howes, Woodstock, Vt.

WHITE WYANDOTTES and Barred P. Rocks, best blood in the country. The right kind of breeding stock at bottom prices. Cockerels, $2 and $3. Satisfaction or your money back. Wm. H. Cyphers, Crystal Farm, Washington, N. J.

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CLASSIFIED ADVERTISEMENTS only will be printed under this heading; no advertisement admitted containing less than TWO lines; no display other than the initial word or name allowed; no limit to the number of ads.; an advertiser can divide his copy and put his matter under as many headings as he wishes; all words used except classified headline, to be charged at the uniform price of **25 cents per line** *each and every insertion; no less price per line for any number of lines or times inserted; copy will be changed often as desired; about seven ordinary words will make a line; all fractions of lines charged as one full line; the headlines will be arranged alphabetically, as in a "business directory."*

ACCOUNT BOOKS.

10 CENTS postpaid, a Poultry Account Book. F. F. Deane, 48 Oliver St., Boston, Mass.

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BRISTOL Rabbitry has B. hares for sale from imp. stock. M. Van Allen, Bristol, Conn.

FOR SALE.—One buck, 7 mo. old, sired by 1st winner at Boston and New York. One doe Genl. White, (imported) is bred to the Cardinal, (ported). One doe by Tonawanda Chief, and Climax, Jr. The does are 6 mo. old and over, and well bred. A copy of pedigrees and further information on application.
C. S. Wetmore, Lockport, N. Y.

CHOICE Belgian Hares; young, first order $5. Stamp. Dewing's Orchard Rabbitry, Oak Hill, O.

BELGIAN Hares, imported stock. Illustrated cat. free. Clark & Coleman, Binghamton, N. Y.

BRAHMAS.

DARK Brahmas, ckl's and pullets from prize winners, $2.50 up. Arthur Leach, Middleton, Mass.

BREEDING STOCK.

FOR SALE, 300 Br. and Wh. Rocks, 200 Wh. Wyandottes, grand breeders, 20 eggs $5. Address, Oakland Farm, Bethesda, Md.

BANKS' famous Lt. Brahmas, Buff Holds, B. Bantams. Win high honors at hottest shows. Utility qualities unexcelled. Prices, rock bottom. Erie Poultry Yards, Box 6, Crittenden, N. Y.

HAWKINS' Barred Rocks, Duston's White Wyandottes. I have a limited number of birds from the 1900 matings of these noted breeders for sale. Prices reasonable. Write me.
G. D. Elmer, Erving, Mass.

2000 PULLETS for sale. Crosses, best layers, 50 cts. each. Barred Plym. Rocks, 60 cts. C. E. L. Hayward, Hancock, N. H.

S. C. W. LEGHORN pullets, March hatch, $1 each; June, 80c.; yearling hens, $1.25 each. S. C. B. Leghorn and B. P. R. cockerels, $1.50 each.
F. A. Gay, Jr., Nyack, N. Y.

BR. Leg., Wh. Wyan., hatched March. Weight 8 lbs. Cambridge. Wm. T. Liddell, Greenwich, N. Y.

FINE FARM BRED Light Brahmas, one of Hartnest strain; heavy laying W. Wy. both sexes, single birds $1.50 and up.
Wm. H. Nobbs, Judson, Mass.

BARRED Rock and Brown Leghorn cockerels, extra quality, cheap. J. M. Hedding, Tyrone, Pa.

EMBDEN, Toulouse geese, Pekin ducks, Wh. W. 1st prize lock. C. C. Saunders, Westfield, N. Y.

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BUFF Cochins; young and yearling stock for sale. C. J. L. Ware, South Keene, N. H.

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ENGLISH Setter puppies, best blood in America. Prize winners in the field and on the bench. Registered stock for sale. For prices, etc., address S. A. Fuller, Helena, Ala.

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WHITE Wyandotte. No fancy, bred for business; $4 a 100 after Jan. 1, 1902. Stock for sale. Silver Lake Poultry Farm, Silver Lake P. O., Mass.

EGGS.

BARRED P. Rock eggs for hatching, 75c. for 15. John W. Young, Box 107, Lanesville, Mass.

BARRED Plymouth Rock eggs, $2 per 13; $4 per 50; $7 per 100. Fine vigorous stock from leading strains. Abram Tallman, Englewood, N. J.

EGG MARKERS.

POULTRYMEN.—Formula for making the best egg marker and circular letter printer on earth sent for only 10 cents. Address, Geo. Butler, Lake Butler, Florida.

EXCHANGE.

ONE 7 H. P. horizontal engine, double cylinder, can be used with one cyl., in good condition; will exchange for poultry or incubator. Address H. W. Longden, Putnam, Conn.

GEESE.

LARGE Embden Geese for sale from prize winning stock. Bernard Plantz, Johnstown, N. Y.

HAMBURGS.

S. S. HAMBURGS. My yards are of the best, headed by the cockerels that won both firsts and seconds at Boston and New York. Some excellent cockerels and pullets for immediate sale at moderate prices. Robert Treat Paine, Jr., 85 State St., Boston, Mass.

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THE PERFECTED INCUBATOR, cash, installments, or rented. The Perfected Regulator fits any incubator; 4c. in stamps for circular. H. D. Moulton, Taunton, Mass.

OLD Homestead brooder, best on earth. Cat. free. Old Homestead Brooder Co., Middleboro, Mass.

FOR SALE, two Monarch incubators, in good running order, used up to date, $25 each. Weber Bros., Wrentham, Mass.

FOR SALE, one 220-egg Star, one 100-egg O. K. incubator, good as new, used two years. L. I. Keen, Kenilworth, Pa.

FOR SALE or exchange, Prairie State 200-egg incubator in good order, cheap for cash, or will exchange for White Wyan. pullets, April hatched. U. R. Creed, Shrub Oak, Westchester Co., N. Y.

TEN STAR outdoor ten dollar brooders, used one hatch, seven dollars apiece. They are in excellent condition. One Dandy bone cutter, cost twelve dollars,—seven dollars. One Mann clover cutter, cost ten dollars,—seven dollars; both machines in good order. Alfred Anderson, Hopewell, N. J.

LANGSHANS.

UTILITY and beauty bred males, $1 and $2. Mrs. Bisbee, 73 Clarkson, Dorchester, Mass.

LEGHORNS.

FOR SALE, 300 S. C. Br. and Wh. Leghorn hens, fine breeders, 26 eggs $1. Address, Oakland Farm, Bethesda, Ohio.

A 1 COCKERELS, produced from New York winners of 1899—1900. S. C. Brown Leghorns and S. C. Buff Leghorns. They are beauties, and are farm raised. Thomas Peer, Fairfield, N. J.

BARGAIN. 50 early hatched S. C. W. Leg. pul. (Knapp), $9 per doz. W. J. Kilts, Milford, N. Y.

MINORCAS.

800 ROSE and Single Comb Minorcas for exhibition and utility, cheap. Large catalogue. Geo. H. Northup, Box 179, Baceville, N. Y.

PLYMOUTH ROCKS.

A FEW "nuggets" for sale. My Buff Rocks have been winners at Amesbury, Haverhill, Beverly, and Worcester, and in the hands of my customers in Boston; also a few Buff Wyandottes. W. E. Blaisdell, E. Rochester, N. H.

SMITH'S Barred Plymouth Rocks have an egg record of 206 eggs per year. Improve your stock with one of our healthy vigorous cockerels, $2 to $4; pullets from $2; trios, $5. Your money returned if not satisfactory. Smith & Son, Box 508, Haverhill, Mass.

BUFF P. Rocks, cheap, yearlings and young stock. A lot off colored pullets at 75c. apiece. Also 10 Buff Leghorn hens and cock for $8. J. H. Hellerman, Doylestown, Pa.

CHOICE cockerels. White Plymouth Rocks, a few Wh. Wyan. and R. I. Reds, extra laying strains, $2 each. W. M. Davis, Hancock, N. H.

BAR. P. Rock pullets, dark colored; $1.50 and up. Edw. Little, East Haverhill, Mass.

POULTRY FARMS.

FOR SALE—My entire stock of poultry, including all my breeders and prize winners in the following varieties:—Buff, Silver, and Golden Wyandottes; Buff, White, and Partridge Cochins; Rhode Island Reds; Cornish and White Indian Games; Rouen and Indian Runner ducks. The above birds represent the best blood in the U. S., and are all farm grown, strong, vigorous and healthy. They will be sold cheap if taken at once. Arthur H. Sagendorph, Spencer, Mass.

POULTRY SUPPLIES.

BOILED Beef and Bone; balanced ration, hulled oats; clover meal; wheat; barley; oyster shells, grit. Frank L. Thornton, 28—30 Sabin St., Prov., R. I.

THE IDEAL Trap Attachment is not a door. Make them yourself and apply them to your own nest boxes. Simple, accurate, inexpensive. Particulars free. Frank O. Wellcome, Yarmouth, Me.

RHODE ISLAND REDS.

R. I. Reds exclu.; eggs, $1.50 for 15; $5 per 100. E. A. Hall, 60 High St., N. Attleboro, Mass.

10 MARCH hatched S. C. R. I. Red cockerels, selected from a flock of 50, $2 and $3 each. Vine Cottage Poultry Yards, West Haven, Conn.

500 R. C. R. I. Reds, $2 up; 200 R. C. yearling hens, $1.50 each. T. N. Smith, Attleboro, Mass.

R. I. RED cock'ls for breeding, $1 to $3, also trios. Luther Robbins, Hollis Depot, N. H.

TURKEYS.

GEO. WOLF, Seneca Falls, N. Y. Bronze turkeys, 200 of them, bred from 45 to 47 lb. toms and 22 to 28 lb. hens. Grand specimens for exhibition or breeders, mated, not akin, at fair prices. For two years my birds have been awarded more first prizes at Madison Square Garden show than all other exhibitors combined. If you want turkeys from the heaviest flock in the world, write me, enclosing stamp.

40-LB. BRONZE gobbler $7; young stock $6 per pair. Geo. W. Salisbury, Phelps, N. Y.

NARRAGANSETT turkeys, bred and reared for breeders, a specialty. No trace of inbreeding in our flocks. W. R. Tucker, Drake's Mills, Pa.

WHITE Holland turkeys from prize stock. Write at once. Stevens & Co., Wilson, N. Y.

NEWS NOTES.

Short Items About People and Affairs in the Poultry World.

The Marysville (O.) Poultry Association will hold its second annual show Jan. 30—Feb. 2, 1901. Ben S. Myers, Judge. M. L. Myers, Sec'y.

The Painesville (O.) Poultry and Pet Stock Association holds its fifth annual exhibition Jan. 29—Feb. 3, 1901. Chas. McClave, Judge. H. Z. Brainard, Sec'y.

Some of the southern fanciers are beginning to agitate the matter of inviting the American Poultry Association to meet at Charleston, S. C., next after Chicago.

Millville Poultry Farm, Millville, N. J., won 89 premiums at the recent Hagerstown, Md., show. Their fall circular is now ready, and mailed free to all applicants mentioning FARM-POULTRY.

A shipment of poultry valued at $100,000 is being made ready for consignment to Liverpool in this city; it comprises a quarter of a million chickens, and will weigh near 400 tons.

The Bates County Poultry and Pet Stock Association, recently organized with thirty-five active members, will give its first annual exhibition at Butler, Mo., Dec. 26—29. W. W. Graves is president.

The Indiana Fanciers' Association will hold its eighth annual show at Ladoga, Ind., Jan. 9—15, 1901. This is an over Sunday show to get the benefits of the Saturday and Monday trade, but the show is not open to the public on Sunday.

Sec'y Latham, of the National Bantam Association, informs us that by vote of the association H. J. Quilhot, of Johnstown, N. Y., will judge "Bantams other than Game" at the New York show. The vote stood: H. J. Quilhot, 35; C. E. Rockenstyre, 16; W. J. Andrus, 11.

The Dauphin County Poultry, Pigeon, and Pet Stock Association will hold its first annual show at Harrisburg, Pa., Jan. 21—26, 1901. A long list of specials and cash prizes paid promptly. Premium list ready Dec. 1; for this and other information address the secretary, John R. Gore, Box 435, Middletown, Pa.

Among the specials offered at the Reading, Pa., show, Dec. 19—22, is a handsome four piece silver tea service offered by the *Reading Eagle* to the exhibitor showing the three highest scoring birds. No strings attached; the owner of the three highest scoring birds in the show wins this service unconditionally.

An unusual and distinguished visitor, attracting a great deal of attention in this office the other day, was Lord Britain II., said to be the best Belgian hare in America. He came with his owner, Mr. Edward Miles Abbott, proprietor of the Imperial Rabbitry, and made so good an impression that we think possibly the Belgian bacillus would find conditions here somewhat favorable.

Houdan fanciers anticipate a fine display of their favorites at Philadelphia. In addition to the regular premiums offered by the Keystone Association, $5 for firsts, and $2 for seconds, there is a list of thirty-eight cash and other specials, the cash specials ranging from $1 to $10 each, and the Houdan club's trophy cups being among the others. Mr. Thos. F. Rigg is to judge the class.

Dr. C. C. Bricault, formerly in charge of the Bricault Poultry Farm, at Lawrence, Mass., goes to Maplewood Farm, Woodstock, Vt., where he will have charge of the poultry, and where under his management the proprietor of Maplewood Farm intends to make its poultry plant and stock second to none. Dr. Bricault takes a part of his stock with him. He has F.-P.'s best wishes for success in his new venture.

Mr. A. J. Silberstein's announcement of big bargains in Light Brahma cockerels does not mean that he is going out of the business, only that as a business engagement will take him away from home for the next six months he finds it necessary to dispose promptly of all non-producing stock now, and then sell nothing more until his return. His plan is to allow his stock to multiply next season, and then establish himself on a larger scale.

With $600 in cash and special premiums the Elgin poultry show, at Elgin, Ill., Dec. 24—27, promises to be one of the largest and best shows held in northern Illinois this season. The hall engaged gives ample floor space for suitable display of the exhibits. Special attention will be given to pigeons and Belgian hares, and competent judges have been engaged for these classes. Premium lists and further information can be obtained of the secretary, H. E. Denison, Elgin, Ill.

Readers of FARM-POULTRY who do not find poultry foods in such variety as they want in their local markets should write Fred G. Orr & Co., 5 and 6 Commercial Wharf, Boston. This firm carries a large line of commercial foods, and can give estimates on any kind of grain or mill stuff. They are Massachusetts agents for Smith & Romaine's B. B. B., and Boston agents for Peep-o'-Day specialties, Brooders, Portable Houses, etc., which they have always in stock and sell at factory prices.

Mr. Geo. A. Knight, Peabody, Mass., writes us that he is about to close out his entire stock of R. C. Brown Leghorns, and devote himself to Buff Wyandottes exclusively. The stock to be sold includes the cock winner of 1st at Philadelphia and 2d at Chicago last season, and several Boston winners, also five winners of 1sts at Brockton in October last. This is a fine opportunity for some one to purchase a string of prize winning stock and the good will of an established reputation and trade.

The twelfth annual exhibition of the Northern Illinois Poultry Association will be held at Rockford, Jan. 7—12, 1901. Chas. McClave will make awards on poultry, and Geo. Ewald will pass on the merits of the pigeons. Fine displays of Belgian hares, and of pet stock generally are anticipated. The association will give a banquet to exhibitors on some evening during the show. Premium list showing fine line of regular and special premiums now ready. Address the secretary, B. R. Lucas, Belvidere, Ill.

The Wallkill Valley and Hudson River Poultry Association announce that arrangements for their fifth annual show, to be held Dec. 24—29, in the Opera House at Matteawan, N. Y., are now complete, and the outlook good for a show which will excel all their former exhibitions. C. E. Rockenstyre will judge poultry. H. C. Norton will judge pigeons. A fine list of regular and special premiums. For premium list address the secretary, Hector Millspaugh, Walden, N. Y. A postal card will bring it.

The fifth annual exhibition of the Essex County Poultry Association will be held in City Hall, Beverly, Mass., Jan 1—4, 1901. Sec'y Elliot reports preparations making satisfactory progress. Premium list ready about Dec. 1. A class for rabbits has been provided, and a good exhibit of them is expected. The hall in which the exhibition is to be held is one of the best lighted halls in the state. As usual the association proposes to live up to its motto, "Honest judging and prompt payment of premiums." For premium list write the secretary, Arthur Elliot, Peabody, Mass.

Arthur G. Duston's new catalogue of Rose Lawn Poultry Farm White Wyandottes is attractive without and within. The cover bears a most appropriate design, colored and embossed. As a frontispiece appears a reproduction in colors of a fine oil painting, by Sewell, of a pair of Duston Wyandottes. In the pages that follow the merits of White Wyandottes, and particularly of this strain (of course) are attractively set forth, and the reader is given necessary instructions as to ordering stock and eggs, and is also offered some most useful advice on mating, and some other practical matters.

WANTED.

A POULTRYMAN of 18 years experience in all branches, ducks a specialty, is open for engagement. (Married). Competent, care Farm-Poultry.

I WANT TO LEASE a farm suitable for general farming and poultry raising. I am not in a position to buy at present, but would like to obtain the right place would probably buy in a year or two. Not particular as to location if near good market. Address "Lessee," care Farm-Poultry, Boston, Mass.

WANTED, by a competent reliable man, position as manager on poultry plant. Married, no family. Address, T., care Farm-Poultry.

POSITION by a young man, age 17, on a practical poultry farm, to learn the business. For further information, address G. L. Gerwin, 2446 Vermont Ave., Toledo, Ohio.

YOUNG man, single, desires position, on farm devoted to poultry or pigeon raising. Some experience, best references. Address with terms, "Position," care of Farm-Poultry, Boston, Mass.

YOUNG MAN of 23 wants position on egg or broiler plant; some experience, but want more. R. D. Locke, Freeport, Ill.

WYANDOTTES.

WHITE Wyand., choice early pullets, Mack and Knapp Bros. F. E. Bancroft, Groveland, N. Y.

40 WHITE Wyandotte cockerels at $2 each; are large size, fine shape, have rich yellow legs and beak, and small fine shaped combs; are bred from a strain of great layers. Can furnish pairs, trios, and pens of first class breeding stock. Order at once and get first choice. C. A. Stevens & Co., Wilson, N. Y.

WHITE Wys., breeder for 7 yrs., pairs, trios, cockerels and cocks. Prices to suit. C. H. Trask, Hotchkissville, Conn.

COCKERELS, white, blocky birds, yellow leg, regular giants, from known layers, above standard weight, Feb., $3; March, $2. Homestead Poultry Farm, Hopkinton, Mass.

SENECA LAKE POULTRY FARM offers rare bargains in high class poultry; W. Wyandottes and W. Rocks; a grand lot of R. C. W. Leghorn cock'ls, 75c., $1 and $1.50 each. Also a few Buff Cochin Bantams $1, $1.50 per pair. Write W. Y. Ransom, Himrod, N. Y.

WHITE Wyandotte cock'ls from heavy layers, $1.50 and $2. E. L. Prickett, Hazardville, Conn.

WHITE WYANDOTTES. Choice early cockerels and pullets. Eggs for sale. Oxford Poultry Farm, G. A. McFetridge, M'g'r, Oxford, Pa.

WHITE Wyan. Fine clear white, yellow legged birds, first class in every respect. Great layers. Hens $1.50 and $2 each; pullets 75c. to $1.50 each. C. J. Svensen, Eastern Ave., So. Framingham, Mass.

Big Money for Breeders

And agents who handle our new book, "The Belgian Hare Guide," at shows this winter. Best book out on the subject. Sample copy, 25c. Write for terms. INLAND POULTRY JOURNAL CO., Indianapolis, Ind.

Challenge Strain of Lt. Brahmas

All noted for great laying as well as prize winning at the leading shows; winning 20 prizes at Boston, 1899 and 1900. Over 300 to select from. I must sell to make room. Low prices will be quoted the next 30 days. Write and mention F.-P. J. P. KEATING, Westboro, Mass.

BRIGGS

Has a few

WHITE WYANDOTTES

ready to win. Write him. C. A. BRIGGS, Box 407, Taunton, Mass.

Duck Ranch For Sale

A comparatively new well equipped duck ranch. Spacious buildings, modern fixtures and implements, and 800 young breeders. Capacity, 15,000 to 20,000 ducklings. Well established trade.

We procured this plant under circumstances that enable us to sell at sacrifice figures. Write quickly to HANSBROUGH & CARTER, Winchester, Va.

Prince Albus Strain White Wyandottes!

Fine cockerels and a few choice hens at moderate rates. SUNNYWORTH POULTRY FARM, C. R. POWERS & SON, Randolph, Mass.

GREEN CUT CLOVER

NIAGARA BRAND.

Best grade on the market; it is well known and endorsed by leading poultrymen. Cured very green, cut in 1-8 lb. lengths and screened to take out all long stems. No crop bound fowls when you use our clover.

NIAGARA POULTRY FOOD,

Best balanced ration on the market yet for laying hens and growing chicks. Contains our Cut Clover also, best quality beef scrap and bone. A complete food. Try some and be convinced, $1.50 per 100 lbs.; $7 per 500 lbs. Prices to the trade. Samples and circulars free. W. R. CURTISS & CO., Ransomville, N. Y.

Specialty breeders of Mammoth Pekin Ducks, pure White Wyandottes, large Belgian Hares. Write us if you want good stock or eggs. Large Belgian Hares, pedigreed and market stock.

Do Your Chicks Die?

Don't lose them after you have gone to the trouble of hatching them.

FIDELITY FOOD

For Young Chicks

will save their lives and promote their growth. Recommended by leading poultrymen for chicks just out of the shell. Composed of nutritious portions of selected seeds, grains, etc., with all injurious parts eliminated. Fidelity Food for Young Chicks, used by leading fanciers and practical poultrymen, 25 lbs., $1.25; 50 lbs., $2.00; in bbls., $3.50 per 100 lbs. Circulars free.

PINELAND INCUBATOR AND BROODER CO., Box D, Jamesburg, New Jersey.

We also put up food for egg production and a good food for fattening.

ROYAL BLUE

Was undoubtedly the best Barred Rock that ever lived. He won two blue ribbons at New York. His sons and grandsons have won more prizes at America's greatest shows than all others combined. Those who are breeding up to date Barred Rocks have the

Royal Blue Strain.

They are the product of 25 years careful breeding of THE BEST. For genuine Royal Blue blood that will breed winners write

A. C. HAWKINS, Lock Box 5, Lancaster, Mass.

WHITE WYANDOTTES.

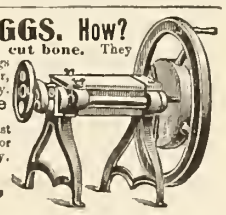
Choice early cockerels and pullets.
Eggs for sale.
OXFORD POULTRY FARM,
G. A. McFelridge, M'g'r. Oxford, Pa.

THE POULTRY ARCHITECT. This book illustrates 117 designs for poultry houses, coops, roosts. Price 25 cents.
EGG RECORD and Poultry Account Book. Most simple and practical. Price 25 cents.
H. A. KUHNS, Atlanta, Ga.

High Grade Belgian Hares

Choice California does bred to my famous bucks, "Pilgrim" or "King 3d," $10 each; as good as most breeders ask $25 for; some very good pairs at $5 per pair. Belgian Hare Guide, 25c.; free with order for stock. Also all colors and prices in Angora Cats. Ornamental Bantams. Circulars free.
W. W. CLOUGH, Medway, Mass.

GET MORE EGGS. How? Feed the hens on green cut bone. They will lay double the eggs right in the middle of the winter, when eggs are worth most money.
DANDY Green Bone Cutters with or without gear are the best machines for preparing bone for fowls. Cut fast, turn easy. Catalogue and prices free.
STRATTON MFG. CO., Box 20, Erie, Pa.



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Our Barred Plymouth Rocks

have a record of 198 eggs each. Are strong, healthy, vigorous, nicely barred, farm raised birds. Cockerels after Oct. 1st at $3, $4 and $5 each. Make P. O. Money Orders payable at Bellwood, Pa.
H. F. COX, Sabbath Rest, Pa.

GOLDTHWAITE'S
Continental Poultry Food

A balanced ration, composed of six kinds of grain, Meat and Fish meal.

PRICE, $1.50 PER HUNDRED LBS.

GREEN CUT BEEF BONE,

Price 2½ cts. per lb.; lots of 100 lbs., $2. Grain and Poultry Supplies of all kinds. Samples free.

E. H. DOBLE & CO.,
West Quincy, Mass.

Eggs For Sale
From the
Crystal Springs Poultry Farm,

150 acre run guarantees healthy stock.
White Plymouth Rocks, Pekin Ducks, } Fishel Stock.
Cornish Indian Games, — Wallace Stock.
Barred Plymouth Rocks, Toulouse Geese, Bronze Turkeys, } Christian Stock.

Booking egg orders now for future delivery. You cannot make mistake by leaving your order with me. Write for prices. Satisfaction guaranteed.

CRYSTAL SPRINGS POULTRY FARM,
GEO. KLAUDER, Jr., Prop.,
P. O. B.-166. Henderson, Ky.

BUFF LEGHORNS.
Fifty cockerels and 100 pullets at $1 to $2 each, to make room. Many good ones.
MILLVILLE POULTRY FARM,
Box P, Millville, N. J.

Annual Meeting of the American Plymouth Rock Club.

The American Plymouth Rock Club will hold its tenth annual meeting at Chicago, Ill., Wednesday, January 23d, 1901, at 10 A. M. Members are urgently requested to attend this important meeting.

I am most anxious to have a long list of valuable special prizes for competition, and ask the aid of all members, trusting they will advise me of their offerings at once so all will appear in premium list, donors receiving full credit for same.

Breeders of Barred Rocks intending to join the club should do so now, that they may be sure of receiving action. Last call.

H. P. SCHWAB, Sec'y-Treas.

Rochester, N. Y.

St. Louis Show.

The premium list of the seventh annual exhibition of Poultry, Pigeons, and Belgian Hares, is now ready for mailing, and can be had upon application to the secretary. The cash premiums are greatly increased this year. On breeding pens, first prize is $5, second $3; on single entries, first prize $2, second $1. Entry fee, breeding pen, $2; single entry, 50c.

We have again secured the Coliseum, and with the Ramsey patent exhibition coop for poultry and hares, we expect to have the most uniform and attractive show ever given. A large number of Belgian hares will be shown, and we were fortunate in securing the services of Mr. R. J. Finley, of Macon, Mo., to score them. Each specimen will be properly scored according to the Shuman card. Mr. Finley recently returned from Europe, where he was associated with some of England's most famous Belgian hare judges. The American Turbit Club will meet at this show, and offer a big list of cash specials to its members.

The Mound City Homing Club, a local organization, will have a large exhibit of Homers. This club makes a specialty of long distance flyers, and many record birds will be shown.

Sharp Butterfield, W. H. Thompson, Henry Tiemau, Robert Joos, and R. J. Finley, are the judges. Entries close Dec. 29th, 1900. Don't forget the dates, Jan. 7th to 12th, 1901.

For premium list, address

JOHN A. FRANCISCO,
Sec'y St. Louis Fanciers' Ass'n,
St. Louis, Mo.

A Poultry Institute at the Cortland Show.

Editor of FARM-POULTRY:—The Cortland show, Dec. 18—22, will have a feature in connection with it which will be new at least,—a poultry institute, and, as it is new, we would like to take enough of your valuable space to give the programme which has been arranged as follows: It will be opened Wednesday evening, Dec. 19th, with a paper by James E. Rice, (who will be the conductor), upon "Practical Poultry Keeping," followed by another by T. F. McGrew, on "Breeding, from a Fancier's Standpoint," and organization of a State Poultry Institute Association, and appointment of committees. Thursday morning at ten o'clock Frank Heck will tell us "How to Obtain Standard Weight by Food and Care," and a paper will be read from the veteran judge, F. B. Zimmer, on "Poultry Judging." At 2 P. M. Dr. Mark D. Williams will tell about "Poultry Diseases;" Mrs. Geo. Munroe will tell us about "Poultry Breeding from a Woman's Standpoint," and conductor Rice will talk about "Feeding for Egg Production." At 7.30 P. M., J. H. Drevenstedt, of the *American Fancier*, will tell us about "Fitting Fowls for the Show Room," and Chas. A. Cyphers will give us pointers on "Artificial Hatching and Breeding."

In addition to the above the following have been invited to give informal talks: Prof. Wing, Cornell; M. Davenport, of the *Poultry Star;* E. O. Roessle, New York; Walter A. Wagner, Luzerne, Pa.; H. P. Schwab, secretary A. P. Rock Club; Hon. D. A. Nichols, and others.

The question box will be a prominent feature, and if any one who cannot be present desires to ask any practical questions, if he will send them to the undersigned they will be presented.

We have set the ball rolling, now let all interested give it a push.

Very truly yours,
E. M. SANTEE, Sec'y.

The White Rock Club, and Mr. U. R. Fishel.

For the information of those interested in the matter, we give herewith both sides of the controversy now agitating the American White Plymouth Rock Club.

Mr. U. R. Fishel, an ex-president of the club, through the press, and by letters to members announced his withdrawal from it for the following reasons:

"First — The club is run too much on 'the one man' order for it to ever do the good it was organized for.

"Second — Lack of business methods in managing the affairs of the club.

"Third — It seems impossible for me to get justice in club matters at the hands of the secretary and his 'following' in the club."

To this, Mr. Frank Heck, secretary of the club replies, in a circular letter addressed to its members:

"I regret very much that I am compelled to write you regarding the communication you have received from U. R. Fishel, of Hope, Ind., in which he tenders his resignation as a member of this club, and attempts to create dissension by false statements relative to the condition of the organization.

"Charges have been preferred against Mr. Fishel by Mr. Geo. Sherman, of Berkely, Calif., who claims that Mr. Fishel deliberately swindled him in sending him a pen of birds all underweight, and a cockerel which had been scored without the weight clause being considered. The matter has been referred to the two boards, and they have decided that Mr. Fishel be expelled from the club unless he receives the birds back, and refunds the amount paid for them, as well as paying all express charges. His real reason for resigning is undoubtedly to avoid this verdict, but as it was rendered before his resignation was received, it therefore takes precedence over his action, and the question of allowing him to resign is now being considered by the two boards. As for the club being a one-man affair, I wish to call your attention to the fact that all members have at all times been asked to vote on all matters except such as properly come before the two boards, in which case each member of the boards has been urged to give his views. No one knows this better than Mr. Fishel himself. As for the club not being managed on business principles, I refer you to the unprecedented success of the organization and its financial condition at this time, also the following unsolicited testimonials from two prominent poultry journals:

From Poultry Monthly, Albany, N. Y., July, 1900.

"The statement of the financial condition of the American White Plymouth Rock Club, from Frank Heck, secretary and treasurer, shows a very tidy sum to the good. *There is no doubt about the affairs of this club having been handled in a masterly manner.* Its success should be an inspiration to all other specialty clubs."

From National Fanciers' Journal, Chicago, Ill., Sept., 1900.

"The White Rock Club takes much pride in its size, and justly so. It has the largest membership of any specialty club in this country, and is a noteworthy example of what hard work can accomplish. *The financial report recently issued by its secretary and treasurer shows the club to be active and on a strong financial basis.*"

"Mr. Fishel's statement that he cannot get justice, is unwarranted by the facts. I declined to vote either way in the matter of his expulsion, and if he thought he could not get justice from the twenty-four members of the two boards, the constitution gives him the right to appeal to the whole club. I have received so many letters from members condemning Mr. Fishel's course that it is impossible for me to reply to them personally, and I take this means of tendering my thanks for their encouragement and support, and beg to assure them that it is fully appreciated."

The committees acting on the case were:—

Executive Committee — W. S. Russell, Ottumwa, Ia.; H. A. Bridge, Columbus, O.; Mrs. Nellie Hawks, Friend, Neb.; C. G. Hinds, Alameda, Calif.; W. C. Pierce, Indianapolis, Ind.; E. M. Durham, LaPlata, Mo.; Frank Heck, New Albany, Ind.; J. A. Grover, Concord, Mich.; J. L. Smith, Spokane, Wash.

Advisory Board — H. A. Stearns, Cannon City, Col.; Rev. Jno. Hughes, Table Grove, Ill.; W. C. Crosbie, Manitou, Can.; O. F. Frost, Monmouth, Me.; H. A. Kuhns, Atlanta,

Shipping Coops

Made entirely of first class pine lumber planed inside and out. Will make the stock look fifty per cent better to your customer than it would in a shabby coop, and first impressions are usually lasting. These coops are not ruined by water, like paper ones and are the only sure protection against rough handling and drafts and from excessive heat in express cars.

They have been on the market seven years. Are used by thousands of the leading shippers in all parts of the country with entire satisfaction.

We also manufacture Exhibition Coops, Show Coops, Shipping Crates, etc.

Catalogue free.

CANFIELD COOP CO.,
7 Main St., - BATH, N. Y.

We Don't Keep Scrubs. We Do Keep Good Ones.

And offer you 25 fine S. C. W. Leghorn cockerels at $1.50. Extra fine birds $2.50 each. The kind you read about $5 each. A few Buff Leghorns at $2.50, and Buff Rocks at $2.50.

At these prices these birds are bargains. If you want birds for the big shows we will sell you the winners. Remember, our fowls lay the year round.

PLEASANT VIEW POULTRY FARM,
C. A. Durling, Mgr. Hopewell, N. J.

Hartnest Strain

COCKERELS, $2.00 AND $3.00 EACH.

Owing to business engagements which will keep me from home for the next six months, I have decided to **immediately** close out all my surplus cockerels at half price, that is to say, at $2 and $3 each. Remember, these prices are **one half of their value.** After Dec. 31st, 1900, and until further notice, I shall sell neither eggs nor stock.

PEDIGREED LIGHT BRAHMAS.

HARTNEST FARM,
Box 2, Framingham, Mass.

Cures Roup.

JOHNSON'S ANODYNE LINIMENT

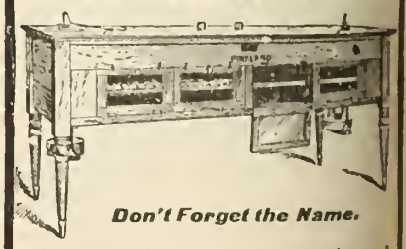
Free, post-paid, Mr. Boyer's book on Poultry Diseases and Treatment.

I. S. JOHNSON & CO., Box 2118, Boston, Mass.

DON'T FORGET THE NAME

Here is an incubator with a hen-sense system of ventilating; with the most sensitive, sensible and practical regulator made; with 19 years good work to its credit, and with good words from every user. It's the

PINELAND Incubator



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Our brooders are just as good as our incubators. *There are none to equal them.*

PINELAND INCUBATOR AND BROODER CO.,
Box D, Jamesburg, N. J.

RED BELGIAN HARES
$1.50 up, according to quality. Good does bred to Victor, winner 1st New York, 1900, for sale cheap. Write us your wants. CURTISS & CO.,
Ransomville, N. Y.

Ga.; G. E. Read, Lebanon, Mo.; R. A. Davis, Merit, Tex.; M. B. Templin, Calla, O.; C. W. Jerome, Fabius, N. Y.; W. W. Kulp, Pottstown, Pa.; W. E. Bartlett, Belle Plaine, Kan.; T. R. McDonald, Wades Mill, Ky.; J. L. B. Gilmore, Holly Hill, S. C.; S. M. Williams, Monroeville, Ind.; E. B. Eddy, Chicago, Ill.

Sharples Cream Separators — Profitable Dairying.

Thinks Mr. Pearson's Records Right.

Editor FARM-POULTRY: — By your kind permission I wish to state through your columns that I think you reflect on Mr. P. A. Pearson's character as an honest man, on page 393, Nov. 1 F.-P., in comments by you following extract from the *Maine Farmer*. "Disinterested parties"—certainly the only way to get a true egg record per hen is the individual trap nest or similar device.

As I feel that I am in a position to judge Mr. Pearson as a man and breeder of high class poultry, having had several years of dealings with him, both in selling him birds and eggs, and in buying birds and eggs from him, I can only say that he stands out in my estimation as a perfect pattern of straightforward dealing, and not only that, but the most skilled breeder of B. P. Rocks it has been my good fortune to deal with, and his Wyandottes are not far behind.

His success as a breeder of Barred Rocks has come from careful line breeding. Here is another instance that corroborates what Thos. F. Rigg says *re* "Line Breeding." It is a wonder to me that P. A. P. does not advertise his stock. I believe you would confer a boon on B. P. R. breeders, and in no small way on the *breed*, by getting him to patronize your ad. columns. I have no right to trespass on your space to extol Pearson's stock over that of other breeders, but I write these few lines (without his knowledge or permission) simply to counteract any bad impression grasped from your foot note, for I have found him a very quiet, busy man, and one of the most industrious citizens of Calais.

Grand Pre, N. S. A. G. G.

The comments to which Mr. G. takes exception impugn Mr. Pearson's character for honesty only in so far as they challenge the probable accuracy of the records of a man who, according to his own statement, is very careless in other matters connected with his poultry keeping, and rather vague in general in his statements. Under such conditions, a man's general reputation for honesty and fair dealing do not make statements which every experienced poultryman in possession of his senses recognizes as probably improbable, one whit more worthy of belief, and on the contrary, the improbable statements inevitably have the effect, among those competent to analyze them, of raising a question as to the trustworthiness of the person making them. To question the accuracy of those offering extraordinary egg records is not necessarily to impugn their honesty: — it may be as it was in this case to express doubt as to whether the person's own statement of the case entitles his story to belief. Mr. Pearson's story of accurate individual records from a hen kept in a grain room with others, with free access to the food stored there, is all that is required to show that his report ought not to be accepted as accurate. People in the poultry world have a right to insist that reports of wonderful performances of hens shall be substantiated by something more than the unsupported word of the man who is using the report for advertising purposes, as was being done in this case, no matter what his reputation. I have had exceptionally good opportunities to examine large numbers of records of poultry keepers, and I find it a rule, with hardly an exception, that people who are not careful, methodical, and systematic in their methods of caring for their stock, are not to be implicitly relied upon when they furnish figures for their stock. With the best intentions in the world they furnish figures which are inaccurate — even with trap nests they make errors.

Be Sure Your're Right Before You Go Ahead in the Poultry Business.

Editor FARM-POULTRY: — I wish to ask your opinion of a project I have in view, which is as follows:—

I intend in the near future — in a year or so—to establish myself in the poultry raising business on Long Island, about forty miles from this city; and shall own outright at the start house, land, poultry stock, and buildings, feed and enough capital to keep things going until there are some cash returns.

At present I am employed in a large wholesale house where I have been for over sixteen years, having always been in the office, taking charge of books, etc., and having a thorough knowledge of business, which I would employ when going into the poultry business, and I wish to say that I intend to give all my time to it, just as I do to my present business. Of course I do not expect to make the same amount of money that I do at present, but my object is to get into business for myself, and, moreover, to live and work out of the city, as I have always wished for a country life, and have for years spent all my spare time in the country.

You will observe all I wish to know is whether I could make a fair living under the circumstances I have mentioned. Please advise me in regard to the number (and of what breed) which I should have at the start, and give any other information which you deem essential. I have in view raising ducklings, broilers, and eggs. J. H.

New York City.

The most important advice that can be given this correspondent is:—Don't leave your present good position until you are sure you can make a living in the poultry business. Being in business for one's self has its drawbacks as well as its advantages, and when the business is one which the proprietor does not understand the drawbacks usually outweigh the advantages. If you feel that you must have a try at the business, buy a home outside, but within daily reach of your present work, and begin poultry keeping on a small scale,—very small for the first year, larger for the next, and make progress each succeeding year. When you begin to understand the business, hire a good steady man whom you can depend on to do what you tell him, such a man as you can get for a farm hand's wages, and give your spare time to further study and superintendence of your plant. In this way you may in a few years put yourself in a position where the outlook for your poultry business will justify you in devoting your whole time to it. At present, you knowing nothing about poultry keeping, it is extremely doubtful whether you could make it go unless you had, and were willing to spend in that way, funds to carry the business for several years, in which the receipts would be likely to fall short of expenses, even with your labor thrown in. If you will suppose some man who knew nothing of your business attempting to manage one of that kind, and consider the objections which at once suggest themselves to you as reasons why his course is not wise, you need then only apply these to your own poultry project to see how it looks to an old poultryman.

A "What-Do-You-Call-It?"

Editor FARM-POULTRY:—I send you under separate cover a "what-do-you-call-it?" It dropped out from immediately behind the gizzard of a hen that was being prepared for cooking. She was a mongrel and apparently healthy. She was laying up to June 1, but had not laid since. July 1st she hatched ten chicks,—has clucked continuously since then, broody three times since the hatch, and fed even up to last night the young pullets just as she did her little chicks. The eggs discovered in dressing her were just about discernible with the naked eye. Small "what-do-you-call-its?" were under the skin, next to the flesh but not adhering to it. They were chiefly on legs, breast and back.

I have 52 pullets and hens, and feed two quarts of ground feed in the morning, with half a pint to a pint of millet scattered in litter which keeps them busy all day. At night, I

STEARNS BONE CUTTER

Over 600% Increase.

SPOKANE, WASH., January 30, 1900.

Gentlemen:—I take pleasure in reporting to you the result of the No. 6 Stearns' Green Bone Cutter purchased in November, 1899. From a mixed lot of pullets and hens, I secured 98 eggs in January, 1899. In January, 1900, from exactly the same number of pullets and hens, I have secured 723 eggs. I attribute this not only to the fact that I feed green cut bone, but also that it was **properly prepared** with a Stearns Cutter. Yours truly, F. L. Samson.

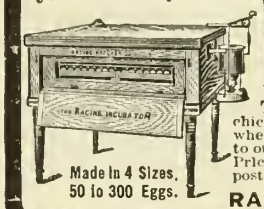
The **Stearns** is the only cutter producing bone cut so fine as to be safe for pullets and chicks. Self-feeding, self-regulating, non-clogging. Cuts gristle, meat and cracks corn. Doubles egg product. Lengthens laying season. Soon pays for itself.

FREE A valuable work on "How to Make Poultry Pay," by eminent poultry authorities, with catalogue of bone cutters, grit crushers, clover cutters and other appliances.

E. C. STEARNS & CO., - - Box 4 Syracuse, N. Y.

WHAT DO YOU HATCH FOR?

If you are hatching chickens merely for fun, then the selection of an incubator is of little consequence. But, if you want to hatch for business, and make your poultry pay big profits you should buy and use



RACINE Incubators and Brooders.

They embody all the correct principles for hatching and growing chicks, ducks, turkeys, etc., to maturity and profit. Valuable eggs are safe when you put them in our incubators. Valuable chicks are safe when intrusted to our brooders. Self-ventilating and regulating. Easy to handle and operate. Prices are low. Machines guaranteed to be satisfactory. Send 2c stamp to pay postage on catalog "Poultry Pointers." It's full of poultry information.

Made in 4 Sizes, 50 to 300 Eggs.

RACINE HATCHER CO., BOX 29, RACINE, WIS.

WE VOTE FOR

DARLING & COMPANY'S PURE POULTRY FOODS.

Because:

1st. They are Animal Matter and furnish us the same material which we obtain so abundantly in summer from worms, bugs, etc., when we have a free range.

2nd. They are Nitrogenious (contains lots of albumen,) that's what we want for eggs.

3rd. They are easily fed, digested and assimilated, being mixed with our regular grain and vegetable rations.

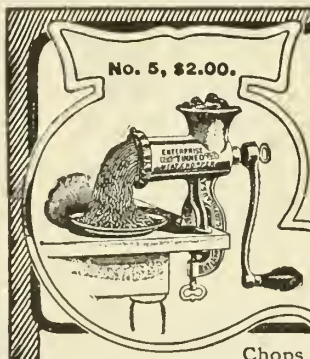
These are only a few reasons why your poultry would vote for

DARLING'S PURE POULTRY FOODS,

if they were in your position and could choose their own supplies. If you are interested in obtaining the best financial results from your poultry, you can not afford to be without our pamphlet on feeding, "Fill the Egg Basket," which also describes our goods and gives prices. It is yours for the asking.

DARLING & COMPANY,

Dept. U, Union Stock Yards, Chicago, Ills.



ENTERPRISE Meat and Food Chopper

Chops raw or cooked meats, fish and other food better, more evenly and more rapidly, than any other chopper. More convenient to use and to clean than any other chopper. Will save you time and work in the preparation of almost every meal. Will save enough food to pay for itself ten times over. Always ready, never gets out of order; can be cleaned in a minute. At all hardware, house-furnishing and department stores. 35 styles and sizes—hand and power. From $1.00 to $275.00. Catalogue, describing many other household helps mailed free.

Send 4 cents for the "*Enterprising Housekeeper*"—contains 200 recipes.

THE ENTERPRISE MANUFACTURING CO. OF PA., Philadelphia, U. S. A.

FREE!

Sell ten of our stick pins, or ten pairs of our link cuff buttons, or combination sets of each, at 10c. each, return us the money, $1, and we will send free this Alabaster Diamond ring, or ladies' beautiful Corinthian Diamond brooch, 11 stones. All goods guaranteed solid gold finish. Send for premium list, and you will find that we give the most valuable premiums of any house in the world. Send full address for combination sets and premium list.

ART NOVELTY JEWELRY M'F'G CO.,

95 Pine St., Providence, R. I.

give two and a half quarts of corn. This has been their diet for two months. As the hen killed this morning was rather fat, it strikes me forcibly that something is wrong with the feeding, although we are averaging five eggs per week from each hen that has completed her molt, (pullets not laying yet). The entire flock appears healthy, and not a lazy one in the lot. They have free access at all times to fresh water, grit, shell, bone and charcoal. Please inform me what was the matter with the hen, and what is the matter with the owner and the feed box.

Merchantville, N. J. E. A. C.

The "what-do-you-call-it?" seems to be a tolerably hard mass of undigested food, which seems to have been forced out through an aperture in the gizzard or intestine, and pressed firm by pressure of the fat in the abdominal cavity. Its appearance would indicate that it had been there only a very short time, not long enough to have caused any trouble, though had the hen not been killed about that time it is likely that this would have caused serious trouble before long. Mr. C. mentions similar substances under the skin, but it seems unlikely that these can be of the same character as that sent me. They are probably tumorous growths, and it is no doubt due to them, and to the overfat condition of the hen that she ceased to lay. If Mr. C.'s hens do not get something by foraging their ration looks like an extremely light one. If they forage where picklings are abundant, it may be too heavy.

The Crowing Hen.

We are informed that hens are sometimes affected with atrophy or wasting away of the ovaries. The hen, of course, stops laying, and takes the voice, plumage, habits, and spurs of the capon. Will you tell us whether this disease is at all common? Is it characteristic of any particular breed? What causes it? Can anything be done to prevent it? Would you consider that extra large spurs on a hen indicated disease of the ovaries?

The trouble you speak of is not common among hens, as I never knew of but two troubled in that way. I think it is a characteristic of no particular breed. Of course, the bird's usefulness is at an end. I have owned cows affected in that way, pawing and bellowing, and exhibiting the same characteristics as the male, and they are worthless ever after as milkers, as well as for reproduction.

JAMES RANKIN.

Atrophy of the ovaries is so very rare that we have not been able to collect sufficiently numerous data to come to any definite conclusion as to the matter. I doubt whether it enters into the poultry problem sufficiently to amount to much. I have consulted our veterinarian, and he has almost nothing to say. I should not consider that extra large spurs on a hen indicated disease of the ovaries. I regret that we have not at hand full information as to this matter. I doubt if it is yet obtainable. A. A. BRIGHAM.

I have long endeavored to investigate what has been termed by many—"masculine" hens. The cases have been so rare, however, that I have never had an opportunity to perform a post mortem. I have never noticed that such hens changed any. Those that I have seen (very few) were coarse and masculine in appearance, and I have seen them (and heard them) crow. But they laid eggs, and were not barren. The capon and hen are very similar in voice and habits. In fact, caponizing effeminates the male. Instead of the hen imitating the capon, it is the reverse. Spurs on hens cannot be accounted for. I have seen long spurs on hens that were the best of layers, mostly on hens over two years old. If atrophy of the ovaries affected hens the combs would shrivel. On the contrary, a "crowing hen" has a large comb, that is, for the breed. It is not characteristic of any breed, and is very rare, as I have only seen two or three cases in my experience in poultry, and I am sixty years old, and been at it since 1853. I have often endeavored to study it out, but concluded that as there are "masculine" women (in build and voice), and masculine females among animals, so may it occur among birds, but I must confess that I am unable to account therefor, as I have had no opportunity to become informed. P. H. JACOBS.

There are hermaphrodites of almost every species of animals. I well remember a specimen of a human monstrosity of this kind preserved in the museum of one of the medical colleges in which I studied in my youth. It is a fully formed male and female of the human race. It is only a short time since I heard of a sheep of this kind, of which I took the occasion to inform Prof. Law, of Cornell, hoping he might secure the example for the college museum. Since then I have heard of a bi-sexual bovine, and I well remember once killing a deer, a good many years ago, of this kind. In fact, there are many examples of this union of the sexes in one animal, most abundantly among birds, and among birds I think among the domestic fowls. So we have crowing hens, incubative cocks, hens with spurs, and sometimes perfect specimens of the hermaphrodite or double sexed animal. It is not a disease, but a freak of nature which is going back to first principles; a case of atavism, in fact, which occurs at times. Of course the abnormal animal is infertile, generally, because in this return to first principles nature is unable to go all the way and make her work perfect.

This is quite akin to a sport among plants, which is an instance of the survival of some hereditary influence, and thus the crowing hen and the incubative cock are sports, the survival in part of the ancient principle of life. They are not instances of disease, but simply occurrences of a still partially active principle of life by which the present is connected with the past, going back to the very origin of life in the universe. So, too, there is no method of prevention. It is an accident of birth, and as is done in the case of abnormal births — which even occur in the human race as well as among the lower animals — the monstrosity is so imperfect that it cannot live, and is truly and literally an abortion. I doubt if such a hen as is described ever laid an egg. It may cackle, but this cackling is, as may be said, perfunctory altogether, just as her crowing is. These instances are very interesting, as they connect the present with the past, and bring before the mind the very origin of things of life, as well as of all inanimate matter. We are as unable to explain these things, and may well rest as the delightful English poet felt obliged to do when he wrote those pregnant lines:

Little flower on the crannied wall;
Peeping out of the crannies,
If I could tell what thou wert all in all,
I should know what God and man is.

H. STEWART.
—*Rural New Yorker.*

We Stand Corrected.

Editor Robinson, of FARM-POULTRY, thinks we have made a mistake in the caution we gave in a back issue: "Beware of volunteered advice," and says: "What is a poultry paper good for that does not volunteer advice? *A Few Hens* certainly gives lots of it—good advice, too. Perhaps, though, it is only the individual who volunteers advice that is meant. Even then it is not a bad idea to consider where it comes from." For editor Robinson's benefit, we wish to say that by "volunteered advice" we have no reference to advice that is paid for. Advice given by *A Few Hens*, or any publication, is advice paid for by the subscribers; but the obnoxious volunteered advice to which we refer is advice that comes from every "Smart Alec" who visits your plant. They will tell you just what you must do, and yet they themselves are a failure at everything they undertake. Beware of such teachings.—*A Few Hens.*

Only Sometimes.

Miss Leonard says that her financial report for the past year (when she gets time to make it out) will justify those who ask if there is a profit in hens. She adds, "My sister says keeping hens reminds her of a story she once read of two little girls.

'I wouldn't like to take castor oil, same as you do,' said the first one.

'Why,' said No. 2, 'My mamma gives me five cents every time she gives me any oil.'

'Oh! and what do you do with your money?'

'I give it to mamma to buy more castor oil.'"

Course of Instruction in Poultry Keeping.

C. W. McM.:—If my memory is not at fault, it was stated last year that the necessary expenses of the course in poultry keeping at the R. I. Agricultural College were covered by $40 for students resident in the state, and $50 for students from outside the state, the latter being required to pay a tuition fee of $10. If you contemplate making poultry culture your occupation, it would certainly be advisable for you to take this course. With your few years of practical experience on a small scale, you are in a position to get more out of such a course than one who goes there with less practical knowledge of the methods of the poultry yard. Young men who take this course have specially good opportunities to negotiate for desirable positions.

Cracked Corn and Gapes, Again.

Editor FARM-POULTRY:—I have been amused by reading the articles in F.-P. last summer in regard to feeding cracked corn to prevent gapes in chicks. I raise from 150 to 300 chicks each season, and from the time they are three days old they have cracked corn by them. The first three weeks I feed five times a day:—boiled egg and bread crumbs, pin head oat meal, and cracked corn. After the chicks are a week old, I bake a cake of meal, bran, ground oats, and middlings, with a little animal meal. The cake takes the place of the boiled egg part of the time. After the third week I feed the cake twice a day, and cracked corn twice a day. After the chicks get older I feed a mash morning and noon, and cracked corn at night.

I have had hundreds of cases of gapes, and when anyone talks about cracked corn preventing gapes, he is talking about something he doesn't understand. One writer says he "has thought the corn dislodged the worms from the throat of the chick." Anyone that has ever extracted the worms knows that they are found only in the windpipe of the chick. While operating on chicks for gapes, with a horse hair extractor, I have had several choke and die in less than a minute. Have opened the windpipe and found that the horse hair had pushed a bunch of worms together and shut off the chick's wind. I have kept chicks off the ground till they were quite large, and they would escape the gapes. By keeping camphor in the drinking water, I have kept the gapes down to a small per cent. By changing ground every two years the gape worms will not give much trouble. Since Jan. 1, 1900, I have fed over 3,000 pounds of cracked corn to my hens and chicks, and I am positive that it does not in any way, shape, or manner, prevent gapes in chicks.

W. H. PERRY.

PAINT TALK No. XXXV.

WHEN OIL IS HIGH.

Let no property owner, because of the present high price of linseed, be tempted either to delay the painting of his property or to use inferior paint. Whatever the cost of good paint it is but a trifle compared with the damage occasioned by lack of paint; and the higher the price of pure oil, the more sharply should we be on guard against inferior substitutes.

Once and for all, let us get hold of the fact that the best paint, in view of what it saves, costs not most, and that the better the paint the better it pays the user. Let us also get a firm hold of the further fact that oil is the binder which holds together our particles of protective pigment, and that any pigment which is deficient in oil carrying qualities or which acts chemically upon the oil hastens the destruction of paint.

When we realize these two facts we will understand, without further argument, why combination paints containing zinc white and only pure linseed oil are at once the most economical and the most durable.

Sometimes one cannot afford even the necessities of life, and in such circumstances neglect to paint is excusable; but nothing but absolute poverty can excuse the penny wise and pound foolish policy of trying to save money by parsimony in paint.

STANTON DUDLEY.

It takes the place of Insect Life for Hens and Chicks.
It contains all the nutritious elements found in meat
It fills the egg basket and makes Chicks grow.
It prevents constipation, scouring and leg weakness in Chicks

B. B. B.

—IS AN—

ALBUMINOUS EXTRACT OF MEAT AND BONE.

Do You Keep Poultry?

Then you know that **Meat and Bone** are the great requisites for filling the Egg Basket. The Meat supplying the Albumen, the Bone the Shell of the Egg. Now, by adding Meal, Grain and green food, you have everything needed (by the hen) for the production of Eggs.

A hen is simply an Egg Machine; feed her properly, and she is bound, by the laws of nature, to lay eggs regularly.

"Hens Cannot Produce Eggs

(Which are full of meal) without meal, or something equivalent, to make them out of"—for eggs and meat are both composed principally of "Albuminoids and water."

We are prepared to supply you with the former, you can furnish the water and (if fed as she should be) "the hen will do the rest."

Do You Raise Chicks?

For strong healthy chicks, animal food of some sort **must** be used, and we offer our **Boiled Beef and Bone** as especially adapted for this purpose. It being **thoroughly cooked**, will prevent all bowel trouble, and supply all the nutriment of meat, without its accompanying defects.

What Will Make Hens Lay?

Dosing them with medicines? Feeding them Condition Powders? or supplying them with nature's food,—Albumen, Nitrogen and Bone? **We claim the latter.**

Our **Boiled Beef and Bone** will increase the production of Eggs, and increase the fertility of Eggs. We don't ask you to believe all we say—only enough to test its truth. **Boiled Beef and Bone** will make hens lay, because it supplies them with Egg and Shell forming material. Medicines won't make hens lay. A sick hen can't lay, and healthy hens don't require medicines or condition powders. All they need is an **Egg producing food**, and you have it in **B. B. B.**—everything required to make an Egg.

Mr. Warrenton, a celebrated English chemist, tells us that the principal ingredients of an Egg are Nitrogen, Albumen, Lime and Phosphoric Acid. Analysis shows **B. B. B.** to be rich in Albumen, Nitrogen, Lime and Phosphoric Acid. In fact, **B. B. B.** contains **all** the essence of an Egg—**Albumen, Yolk** and **Shell**. You simply add the water and meal—the Hen does the rest.

BOILED BEEF AND BONE

Differs from all other animal meals, in that it is *made* from **ABSOLUTELY FRESH MATERIAL**, never over 6 hours old. The Cattle and Sheep Heads, Lights, Livers and Beef are from stock slaughtered on the premises, and are cooked, dried, crushed, ground, mixed and bagged, all within 9 to 12 hours from time of killing. Samples sent free. Write for book, "How to Make Hens Lay," free.

GUARANTEED. Cheaper than Meat, Better than Scraps.

Safer than medicines; *rich in albumen*. It prevents leg weakness, bowel complaint and feather eating. **50 lbs., $1.25; 100 lbs., $2.25.**

D. W. ROMAINE,

Successor to SMITH & ROMAINE, Sole M'f'r,

124 Warren Street, NEW YORK CITY.

To Breeders of Buff Rocks.

While the Buff Plymouth Rock Club membership shows the names of many breeders, there are a goodly number who have not yet joined us, and to all these I extend, on behalf of our club, a cordial invitation to associate themselves with us.

Our annual meeting will be held in Chicago during the Chicago show in January. The Chicago Association have been very liberal in offering a large list of excellent cash specials, and these put together with those offered by our club members, and the handsome silver cup that is offered by the club, will be worth striving for, in addition to the honor of winning at such a show and the annual meeting. We hope that all regular exhibitors at meetings previous to this, and the many new ones we know have birds, but for some reason have been holding back, will compete for these, and help make this our most successful meeting.

Our club also gives a silver cup to every state having ten or more breeders, which only the breeders of that state can compete for, and their names must be enrolled before the premium list for show, where competition is held, is issued. (The club specials at Chicago go to breeders of any state, but names must be on the list before the premium list is issued, same as for state cup). A number of breeders joined us too late last season to be eligible under the above rule.

Membership fee is $1, which is also the amount of dues. Our valuable catalogue can be secured for a two cent stamp from the secretary. W. C. DENNY, Sec'y.

Rochester, N. Y.

To Breeders of White Wyandottes.

Attention is called to the special prizes offered by the Eastern White Wyandotte Club at the coming Boston show. These prizes are for competition by members only, and breeders desiring to compete for same should join the club at once. The annual meeting is called for January 16, at 3 P. M. The admission fee is $1, and application for membership should be made to C. A. Briggs, Taunton, Mass.

Meeting of the White Rock Club.

Meetings of the American White Plymouth Rock Club will be held this season as follows:—

Annual meetings of the whole club at Boston, New York, Chicago and Oakland, Cal.

State meetings thus far decided upon will be held at Cleveland, O.; Detroit, Mich.; Woodstock, Vt.; Torrington, Conn.; Orange, N. J.; Cortland, N. Y.; Philadelphia, Pa.; Jacksonville, Ill.; Louisville, Ky.; Memphis, Tenn.; Lincoln, Neb.; Topeka, Kas., and Spokane, Wash.

Each state is entitled to a state meeting, at which the club diploma will be awarded, and only members are eligible to compete for same.

All White Rock breeders who have not yet joined the club are respectfully urged to send in their application, with the membership fee of $1. Receipt, membership card and picture of ideal White Rock male in colors will be promptly mailed. The club has upwards of 500 members, and is the largest poultry organization in existence. During the past two months more new members have been received than ever before in the same length of time, and this will be the best year in the history of the club.

FRANK HECK, Sec'y-Treas.

New Albany, Ind.

National Wyandotte Club Catalogue.

The annual catalogue of the National Wyandotte Club is now ready for distribution; we will be pleased to mail it to any address free of charge.

This catalogue is tastily gotten up and consists of 67 large pages, 54 of which are solid reading matter and illustrations of America's choicest exhibition birds, or such as have won the highest honors at New York, Boston and Chicago. It contains the by-laws and constitution of our club, a full list of members, also, the successful contestants of our cash specials as placed in connection with our last meeting during the Boston show of last winter. Further, it consists of many instructive articles by prominent and very successful breeders, each covering the variety they have made a specialty of, in a manner that cannot but be a substantial help to those of less experience. All things considered, it is perhaps the most complete catalogue of its kind yet brought out. C. S. MATTISON, Sec'y.

South Shaftsbury, Vt.

Cleveland Show—The "Century Leader."

The management of the Cleveland Poultry Association proposes to make the exhibition at Cleveland, Ohio, Jan. 8—13, 1901, the "Century Leader." This association has a guaranty fund of $2,000, and will increase this amount to $3,000. The amount of prize money offered to exhibitors is very large, and the specials numerous and valuable. It is proposed to make this exhibition equal in all respects to Boston and New York shows—in character, in amount of prize money offered, and in advantages to exhibiting fanciers in all other particulars. It is to be a fanciers' show, and no fancier in America can afford not to show at Cleveland. The entrance fee has been placed at $1 per bird.

The exhibition will be penned by the Empire Cooping Co., which means perfect penning, and will be held in the large and magnificent exposition building, in the very center of the business portion of the city.

Three of Cleveland's largest dealers in market poultry are at the head of a committee having in charge the dressed poultry exhibit. This will be an attractive and important feature of the show.

The White Rock, Houdan, Buff Rock, and other clubs will hold national or state meetings in connection with the exhibition.

The management has the business men of Cleveland deeply interested in the project, and cash and special offerings are being tendered most liberally. One of the largest retail stores in the city has offered a magnificent silver piece, suitably engraved, and of great value.

This is to be an immense exhibition, and a win at Cleveland will carry with it not only great honor, but great commercial worth. It is proposed to make this the most important exhibition in 1901, and every year thereafter. Judging talent of the very highest order has been employed. The following gentlemen have been engaged to place the awards: Drevenstedt, Rigg, Burgott, Nichols, McGrew, Rockenstyre, Foster, Shepherd, Glasgow, and Donkin.

Send at once to F. R. Hunt, Sec'y, 1135 Pearl street, Cleveland, Ohio, for further information regarding the "Century Leader" exhibition.

CATARRH CAN BE CURED.

Catarrh is a kindred ailment of consumption, long considered incurable; and yet there is one remedy that will positively cure catarrh in any of its stages. For many years this remedy was used by the late Dr. Stevens, a widely noted authority on all diseases of the throat and lungs. Having tested its wonderful curative powers in thousands of cases, and desiring to relieve human suffering, I will send free of charge to all sufferers from Catarrh, Asthma, Consumption, and nervous diseases, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing, with stamp, naming this paper, W. A. Noyes, 847 Powers Block, Rochester, N. Y.

Blanchard's White Leghorns

THE LEADING STRAIN OF HEAVY LAYERS,

Are no experiment, having been carefully selected and bred for over twenty years, with results that fully justify the claim that they are **the greatest laying strain of Single Comb White Leghorns in existence.** No labor or expense has been spared in building up and perfecting this strain, and while the production of large pure white fancy market eggs has been the main object, **Standard Qualities** have not been neglected. They are large, vigorous, active and handsome. Good winter layers, and keep at it all summer. 2000 fine youngsters coming on. Our birds are unexcelled for introducing new blood, or as foundation stock. Illustrated circular free. H. J. BLANCHARD, Box 46, Groton, N. Y.

The Appetite of a Louse.

A louse may not be very big, but it does not take many of them to eat up all the profits in the poultry business. Get rid of them. It's easy.

First—Send to our Omaha office for a free sample of

LEE'S LICE KILLER.

You will find it the easiest to use, and the most effective for killing all mites and lice on poultry and hogs. Simply paint the house and roosts or sprinkle the pens.

Second—After testing it for yourself, buy what you need, and it will do the rest. The extra yield of eggs pays for it in no time.

Lee's Lice Killer is sure. Get the genuine. Price 35c. per quart can; $1 per gallon. We pay freight on $5 orders—86 west of Denver.

Lee's Roup and Cholera Cure never fails. 50c. post paid. Samples free from Omaha office. Ask for catalog of stock and poultry supplies.

GEO. H. LEE CO., Omaha, Neb. or 8 Park Place, New York.

The World's Best JUDGES.

THE Show Cooped

The largest Building in Ohio for this Exhibit.

ALL .. at .. Cleveland's Great Show, Jan. 8 to 13, 1901.

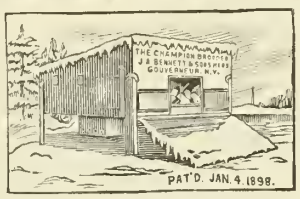
GUARANTEE FUND $2000.00

Inquiries from all over the United States for our Premium Lists.

Show at Cleveland; the record you get here will make you more money than years of advertising.

$5.00 CHAMPION BROODER.

"It Is Known By Its Works."



The Champion is the most successful brooder ever manufactured. It is fast superseding all other kinds.

Aratoma Farm, Katonah, N. Y., Sept. 24, 1900.

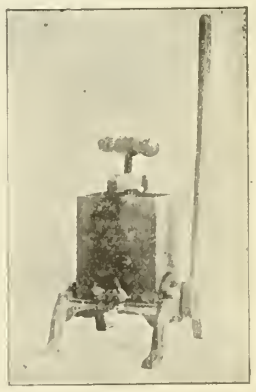
Dear Sirs,—Yours of the 11th at hand,—and instead of using the usual piped brooders I shall replace them with your $5 Champion Brooders. The house will hold 30, but I already have 6, and I now desire to place an order with you for 24, No. 1. I hardly need to again express my opinion of these brooders, as my present order is convincing proof of my high estimation of them. Faithfully yours,

WM. C. CASEY.

If you need a brooder get the BEST; 'tis the Champion.

ANOTHER CHAMPION.

One more Champion is now placed on the market for poultry raisers. Like the famous Champion Brooder it will be an advance over everything of the kind. This Champion is our new $6 Champion Bone Cutter, which is the result of years of experimenting. It is the strongest, biggest and easiest running bone cutter made for the money. It is made on a new principle with tool steel special form knives, which cut fine and fast. Use it and make your hens lay this winter. Every poultry raiser can afford one. Circulars free.



POULTRY SUPPLIES.

Our line of supplies is complete and of the best quality. Oyster Shells, 70c. per 100 lbs.; Granulated Bone, $2.25 per 100 lbs.; Orr's Clear Grit, 75c. per 100 lbs.; Meat Meal, $2.25 per 100 lbs. The best of everything at lowest prices. Send for our catalogues. They are free.

J. A. BENNETT & SONS, Box F, Gouverneur, N. Y.

Ask Uncle Sam

to bring you my handsome catalogue of Poultry Supplies at right prices. Every poultry raiser should have it. It means better results and bigger profits. It describes

HARDING'S POULTRY FOODS

Meat Meal, High Grade Beef Scraps, Clover Meal, Bone Meal, Grits, Charcoal, Leaf Tobacco Dust, etc., etc. These Foods are rich in protein; they make eggs and promote growth. All supplies, shipping boxes, coops, etc., at lowest prices. You need this catalogue for comparison with others.

GEO. L. HARDING, Manufacturer, Binghamton, N. Y.

DRESSED POULTRY AT THE BOSTON SHOW.

Classification and Premiums for Dressed Poultry, Eggs, etc.

This department will be under the charge of a practical poultry dealer, and all stock intended for exhibition must be sent direct to the hall.

In order to encourage this department of the Boston show, no entry fee will be charged, and it is the desire of the management that fanciers of thoroughbred poultry should make exhibits of dressed poultry and eggs, as well as the practical poultrymen. Entries close Jan. 14th.

The general rules and regulations of the society will apply to dressed poultry and eggs.

The association will give to exhibits all possible care, but will not be responsible for eggs or carcasses, if broken, spoiled, stolen or in any way injured.

The Massachusetts Society for Promoting Agriculture has kindly donated $100 to be awarded in premiums.

N. B.—There must be more than three entries in each and all classes or the first prize money will be withheld, but first prize ribbon given and second prize money paid. Very Highly Commended, Highly Commended, and Commended ribbons will be awarded to such exhibits as the judge deems worthy.

In making entries of poultry the name of the breed or variety must be specified; if stock is crossbred the breeding must be stated; if of no particular breeding it should be denominated mongrel.

In making entries of eggs the name of the breed, variety or kind of hens from which they came must be stated.

Each exhibit competing for a prize, (except for the dealers' display of poultry, game, etc.), must be the product of the exhibitor; poultry hatched and reared by him, and eggs from his own hens.

Heaviest, best meated and best dressed turkey, old, male or female. 1st prize $2, 2d $1.

Heaviest, best meated and best dressed turkey, young, male or female. 1st prize $2, 2d $1.

Best meated and best dressed capon, size and weight to be considered. 1st prize $3, 2d $2, 3d $1.

Best meated and best dressed capon raised in Massachusetts, size and weight to be considered. 1st prize $2, 2d $1.

Best meated and best dressed goose or gander, any breed. 1st prize $3, 2d $2.

Best pair of chickens, any breed or kind, softness of flesh, color of skin and legs, and quality of dressing to be considered. 1st prize $5, 2d $3, 3d $2.

Best pair of fowl, any breed or kind, quality of flesh, color of skin, method of dressing and size to be considered. 1st prize $5, 2d $3, 3d $1.

Heaviest and best dressed pair of fowl. 1st prize $2, 2d $1.

Best meated and best colored broilers ranging from 2½ to 3½ lbs. per pair. 1st prize $3, 2d $2.

Best meated and best colored pair of squab broilers, 1½ lbs. or under. 1st prize $2, 2d $1.

Best meated and best colored pair of young ducks, any breed, size and quality of flesh to be considered. 1st prize $3, 2d $2.

One-half dozen largest and fattest dressed squabs. 1st prize $2, 2d $1.

Largest and best display of dressed squabs, not less than two dozen. 1st prize $2.

Special Prizes.

Same rules will apply to these specials as to regular classes.

For the most yellow skinned and yellow legged pair of chickens, $2.

For best meated pair chickens — Brahmas, $2; Cochins, $2; Plymouth Rocks, $2; Wyandottes, $2; any other named variety, $2.

Softness of flesh, color of skin and legs, and perfection of dressing to be considered.

For the most yellow skinned and yellow legged pair of fowl, $2.

For best pair fowl—Brahmas, $2; Cochins, $2; Plymouth Rocks, $2; Wyandottes, $2; any other variety, $2.

Quality of flesh, skin, and legs, and perfection of dressing to be considered.

Most yellow skinned and yellow legged pair of broilers, $2.

For largest and best display of dressed poultry, bred and produced by one exhibitor, $10.

For largest and best display of dressed poultry, game, etc., by dealers, an engraved diploma.

Eggs.

For best one dozen brown eggs. 1st prize $2, 2d $1.

For best one dozen white eggs. 1st prize $2, 2d $1.

For darkest colored one dozen brown eggs, $2.

For whitest one dozen eggs, $2.

For best and heaviest thirty dozen case of fancy fresh brown eggs, $10.

For best and heaviest thirty dozen case of fancy fresh white eggs, $10.

For best one dozen duck eggs. 1st prize $2, 2d $1.

Special Prizes for Eggs.

Same rules will apply as to regular classes.

For best one dozen Brahma eggs any variety, $2.

For best one dozen Cochin eggs any variety, $2.

For best one dozen Wyandotte eggs any variety, $2.

For best one dozen Plymouth Rock eggs any variety, $2.

For best one dozen Leghorn eggs any variety, $2.

For best one dozen eggs, any other pure bred variety, $2.

For best one dozen eggs from any kind crossbred hens, $2.

The Kansas City Show.

The greatest Poultry, Belgian Hare and Pet Stock show of the west, which is annually held in Convention Hall, Kansas City, Mo., opens its doors the 16th of January, 1901, and continues six days. The several thousand coops of poultry and pet stock, which graced the display last year formed one of the most attractive exhibitions held in the west, and will be equaled in every department this season, and more than doubled in Belgian hares. The new construction of the hall offers additional advantages for displaying special exhibits, and the lighting, ventilation and heating are unexcelled. The Interstate Belgian Hare Club, with its hundreds of enthusiastic members, is co-operating with the Fanciers' Association to make this show a success in every detail, and the best stock in their rabbitries are booked for the contest. Entries from everywhere will meet the best in their classes in this contest, and the number of classes are liberal, ranging from five to eight pounds immature, besides the mature. Domestic will have a chance to compete with imported, and the much lauded foreigners will have a chance to prove their worth. Many liberal sweepstake premiums are offered, and the war will wage warm.

Sweepstakes for poultry are liberal, and cover all varieties, and specials are worth a trial of the best. Medals will be awarded in some of the larger classes, and the score card will determine the winner. Cash premiums are guaranteed to the amount of $5,000. Premium lists will soon be ready to send out, and a postal card sent to the secretary will secure one. C. T. Wortman, 512 Hall Bld'g, Kansas City, Mo.

HAGERSTOWN WON!!!

Eighty-nine premiums on Barred and Buff Rocks, White Dottes, Buff Leghorns, Bantams, ducks and geese. Full list and fall circular free.

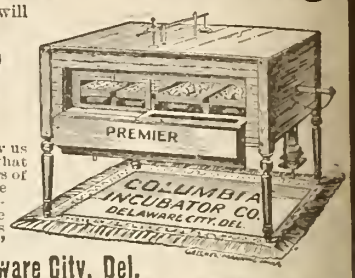
MILLVILLE POULTRY FARM.

M. F. Delano, M'g'r. Box P, MILLVILLE, N. J.

Hold On to Your Money

in buying an incubator until you know that it will really hatch chickens. We send our new

PREMIER INCUBATOR



on trial and after you have thoroughly tested it, you pay us for it. Could anything be more fair? They are so simple that anybody can easily operate them. They are sure hatchers of all fertile eggs. This machine won first premium at the World's Fair. Also medals at Nashville, Omaha and Nat. Export Expositions. We are also sole manufacturers of the SIMPLICITY INCUBATOR. Send 5 cents in stamps to pay postage on large Catalogue and "Poultry Helps."

Columbia Incubator Co., 13 Water St. Delaware City, Del.

"Cold Hens Never Lay."

Other care is necessary, but the most important thing is to keep the birds warm in winter, when eggs are high. Houses lined with

CABOT'S

Sheathing Quilt

Are wind and frost-proof. Quilt is six times as warm as common papers, and costs less than 1c. a foot. It will not rot, or harbor vermin. No poultryman can afford to overlook it, and a postal card request will bring him a sample and full information.

"The house I lined with your QUILT is the warmest one out of a dozen I have."—W. W. Kulp, Pottstown, Pa.

SAMUEL CABOT, Sole Manufacturer, 7 Batterymarch Street, Boston, Mass.

Agents at all central points.

The Sure Hatch

is a high grade incubator at a low price. Thousands in use. California red-wood cases and copper tank incubators at the price others ask for common pine and galvanized iron. Our brooder broods as well as our hatcher hatches. Handsome catalog giving plans for practical poultry houses, yards, etc., free. Write to-day. You need it in your poultry business.

Sure Hatch Incubator Co.,

Clay Center, Neb.

We pay the freight. The Sure Hatch will pay your rent, taxes, and living expenses. Thousands in use, thousands of pleased customers.

WINTER EGGS

HOW TO GET THEM.

Selection, Care and Food of Laying Hens.

The above is the title of a new book. The latest in the Farm-Poultry series; **PRICE 25 cts.**

In many respects it will be the most valuable book we have ever published, because it treats of one subject only, of which every poultry raiser, large or small, wants to know all that is new, or best, namely, how to get the most eggs in winter when prices are high.

THE BOOK will be sent postpaid on receipt of 25 cents in cash or postage stamps; or we will send the book and a year's subscription to Farm-Poultry **both for $1.**

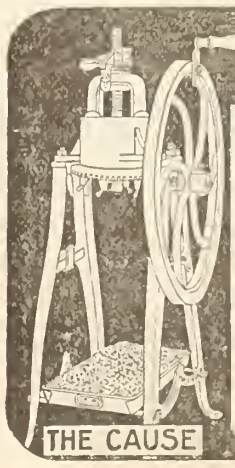
SPECIAL OFFER.

FARM-POULTRY,	Semi Monthly one year - - -	$1.00
A FEW HENS,	Monthly, " " - - -	.25
WINTER EGGS, HOW TO GET THEM.	- - -	.25

ALL THREE FOR $1.10.

Send all orders to us with cash, P. O. or Express money order.

FARM-POULTRY PUB. CO., 22 Custom House St., Boston, Mass.



MANN'S NEW BONE CUTTERS AND POULTRY SPECIALTIES

There are more MANN BONE CUTTERS in use than those of all other makes combined. The reason is not far to seek. It is because they are better. Better in material, design and construction, make a better and more easily consumed product; they are easier to operate, show less wear and breakage and last much longer. They take premiums over all competitors wherever shown. They have more first premiums to their credit than all others. They have done more to make the poultry business a success than any poultry appliance ever invented or introduced to the public. Just as well avoid all mistakes and start right by buying a MANN.

Mann's Clover Cutter will quickly convert clover and other grasses, green or dry, into the most palatable and valuable poultry food. They have but one knife to keep sharp. They cut fast—one turn of the wheel makes 12 cuts. Made with or without stand. Strong, durable and last indefinitely.

Mann's Swinging Feed Tray—an all iron feed trough, which keeps the feed in and the chickens and dirt out. Can't be roosted on. Saves feed.

Mann's Granite Crystal Grit is clear grit without any admixture of sand, gravel or dirt. Full of hard, sharp cutting surfaces, it grinds the hardest food and lasts the longest. Better and cheaper than crushed oyster shells and other so-called "grits." Then, too, its percentage of iron makes it a valuable tonic. We sell either for cash or on installments. Write at once for illustrated catalog. We mail it free.

F. W. Mann Co., Box 55, Milford, Mass.

The Iowa Show.

The sixth annual show of the Western Poultry Fanciers' Association, to be held at Cedar Rapids, Jan. 14—19, will be one of the largest and most complete of any show held in the west. The displays of poultry, pigeons, Belgian hares, and cats, promise to eclipse all former records in Iowa. The association has been fortunate to secure judges in all classes of national reputation, whose ability goes unchallenged. The new Auditorium is one of the finest and largest exhibition halls in the west, ample light, proper heat and ventilation, individual exhibition coops, new hutches, and every convenience for the most satisfactory display of all the the exhibits has been arranged by the association. Intending exhibitors should not fail to send for premium list giving complete information and a list of all premiums; it is free, and may be had by addressing E. E. RICHARDS, Sec'y.

Cedar Rapids, Iowa.

The Great Chicago Show.

The National Fanciers' Association has perfected arrangements for what is to be, beyond doubt, the largest and best poultry and pet stock show ever held in Chicago. This exhibition is to be held on January 21—26, 1901. The new and magnificent Coliseum building has been engaged, and will be especially arranged to meet the requirements of an immense exhibition. The exhibition will be penned in the most approved manner.

With a strong and abiding faith in the fanciers of America, the management has made the most extensive classification ever catalogued by a poultry association in this country.

The aggregate of all cash prizes, general and special, offered at this show is more than $13,826. Think of what this means to the fanciers of America, and especially to those in the mid-west.

It has been decided to pay cash prizes on poultry, Belgian hares, and pet stock, according to the number of entries, as follows:—Twelve in class—first, $5; second, $3; third, $1.50; fourth, $1; fifth, 50c. Eight in class—first, $3; second, $2; third, $1.50; fourth, 50c.

Breeding pens, six entries—first, $6; second, $4; third, $2.50. Two entries—first, $3; second, $1.50. One entry—first, $1.50.

Cash prizes in pigeon classes: Four entries—first, $2; second, $1; third, 50c. Two entries—first, 50c.; second, 25c. One entry—first, 25c.

A very large list of special prizes has been arranged, prominent among which are:

$10 for best display in each of the following classes: Barred Rocks, Buff Rocks, White Rocks; S. L. Wyandottes, Buff Wyandottes, White Wyandottes; Buff and Partridge Cochins; Buff, White, and Brown Leghorns; Langshans, Light Brahmas, Indian Games, Exhibition Games, turkeys, ducks, and geese. In each of these breeds and varieties the best cock, hen, cockerel, and pullet will be given (each) $2.50 in addition to the regular and other special premiums.

The pigeon men have decided to make this exhibition the "century leader," and the management, in full recognition of the importance of this branch of the fancy, has made, among others, the following special offers:

$10 in gold for best display, any one variety. Members only.

$5 in gold for second best display, any one variety. Members only.

$10 in gold for best and largest display, all varieties, by one exhibitor.

$5 in gold for second best display, all varieties, by one exhibitor.

From $5 to $1 for best display in each variety.

The Belgian hare industry has been most liberally cared for, and the indications are that here will be seen the best and largest display of Belgian hares ever benched in America.

In addition to the cash specials, numerous valuable specials will be given. The "American challenge trophy," a valuable and beautiful thing, will be contested for by exhibitors in the American classes.

A large number of specialty clubs will hold national and state meetings in connection with this show. These clubs offer numerous specials to members, and the management has been very liberal in its offerings in this respect.

The judges are Messrs. Zimmer, Butterfield, Rigg, Dreveustedt, Russell, Walden, Bridge, Taylor, Pierce, Tucker, Hewes, Timins, Schmuel, and Plachu.

Mr. Fred L. Kimmey, Sec'y, Morgan Park, Ill., will be pleased to give further information to those interested.

Is It Possible?

Editor FARM-POULTRY:—I have seen several references to the Monmouth Guaranteed Egg Co., but there is one feature of their claims I have not seen exposed. That is the utter impossibility of their controlling the market they claim, even if they perform their impossible feats in the way of egg production.

A little multiplication illustrates my point. There are to be 156 acres, 960 hens to an acre, 200 eggs to a hen. 156 x 960 x 200=29,752,000 eggs produced during a year. Is it possible to control a market of 6,000,000 people with 30,000,000 eggs a year, or 5 eggs to each individual during a year?

Slatersville, R. I. ALBERT DONNELL.

I presume that the general omission of this reference to this feature of the case is because poultrymen have been interested mostly in the claims for the production, and finding these absurd have not thought it worth while to discuss other points. Leaving the Monmouth Egg Co. out of consideration, it is interesting for the moment, at least, to consider what effect a sudden increase of 30,000,000 strictly fresh nearby eggs would have on the price of eggs in New York. It could not, even if the marketing of this large addition to the fresh egg supply were manipulated by a single concern, *control* the market, but it would undoubtedly operate to depress prices of all grades of eggs. A fact which most people who give occasional thought to this subject do not seem to realize, is that though rarely fully supplied in cities of any size the demand for fresh eggs at the usual proportion of advance over ordinary receipts is limited, and that any considerable increase in the supply at any point would bring prices down.

Few, I think, realize how hard it would be to make such an addition as 30,000,000 to New York's fresh egg supply. The actual average of good laying is about 150 eggs per hen per year, and rarely reaches that figure for large stocks (several hundred and upwards) when properly computed. But suppose we call it 150. Then 500 hens is a good large stock, not far from the average of what we may call one-man poultry farms. It would take 400 farms of 500 hens each, each hen averaging 150 eggs per year, to add 30,000,000 fresh eggs to New York city's supply.

His Method of Preserving Eggs.

Editor FARM-POULTRY:—I have read considerable from time to time in your paper regarding the different methods of preserving eggs. Allow me to give you my method, which has never failed, and the eggs are as fresh in March as when put away.

First:—Be sure the eggs are fresh.

Second:—Grease the eggs thoroughly with lard.

Third:—Wrap each egg separately in old newspaper.

Fourth:—Keep in a cool place.

This method has been in use to my knowledge for ten years, and is only known by two or three in this section.

I think it worth a trial, and if it works as satisfactorily with others as with me think it worth a great deal. If you have heard of this method I would greatly appreciate it if you would let me hear from you.

JNO. M. INGRAM.

Station E, Baltimore, Md.

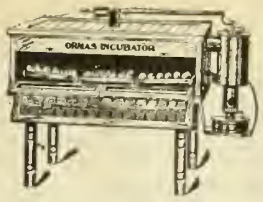
There is more Catarrh in this section of the country than all other diseases put together, and until the last few years was supposed to be incurable. For a great many years doctors pronounced it a local disease, and prescribed local remedies, and by constantly failing to cure with local treatment, pronounced it incurable. Science has proved catarrh to be a constitutional disease, and, therefore, requires constitutional treatment. Hall's Catarrh Cure, manufactured by F. J. Cheney & Co., Toledo, Ohio, is the only constitutional cure on the market. It is taken internally in doses from 10 drops to a teaspoonful. It acts directly on the blood and mucous surfaces of the system. They offer one hundred dollars for any case it fails to cure. Send for circulars and testimonials.

Address

F. J. CHENEY & CO., Toledo, O.

☞ Sold by Druggists, 75c.

Hall's Family Pills are the best.



INCUBATORS from $5.00 up.
BROODERS from $3.80 up.
Fully Warranted.

Nothing better on the market. Easy to operate. Self Regulators. Self Ventilators. Send for free catalogue.

L. A. BANTA, - Ligonier, Indiana.

ARE YOU MAKING MONEY?

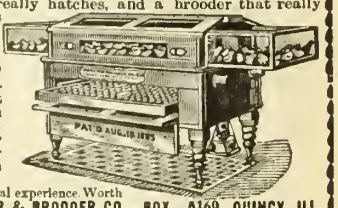
DOES POULTRY PAY? It does if you go about it right. It does if you get an incubator that really hatches, and a brooder that really broods. Folks who are using the world famous

RELIABLE INCUBATORS AND BROODERS

are making money because they hatch every fertile egg and produce healthy, vigorous chicks that grow. They are built exactly right. They have never been beaten in practical results. **RELIABLE BANTLING** 50-egg size, the best small incubator ever made! You'll be interested in it. Just the thing for small poultrymen. Send for our **20TH CENTURY POULTRY BOOK** the best treatise on poultry-raising ever written. Treats every phase of the poultry question from the standpoint of practical experience. Worth $1 but sent for 10c postage.

You will see them at the Paris Exposition.

RELIABLE INCUBATOR & BROODER CO., BOX A169, QUINCY, ILL.



The Egg Basket

will be full to overflowing winter and summer if you feed the hens on green cut bone.

THE ADAM GREEN BONE CUTTER

prepares bone in the best way because it is the best bone cutter. It runs easiest because it is the only bone cutter made having **ball bearings.** So constructed that it can't choke on bone, meat or gristle. Cleans itself. Cuts on the shear plate plan—leaves a fine shaving of bone easily consumed by chick or fowl. It makes money for the hen man or for the broiler man. Catalogue No. 4 free.

W. J. ADAM, JOLIET, ILL.

TWO DOLLARS FOR ONE

Farm-Poultry

—AND—

The Best and Most Practical Farm and Poultry Papers Published

Believing that every one of our readers should have at least one good agricultural and family journal, we have perfected arrangements whereby we can send that practical and instructive journal FARM AND HOME, in connection with semi-monthly FARM-POULTRY and HOMEMADE CONTRIVANCES, on remarkably liberal terms as given below. Lack of space forbids but a brief description of the contents of FARM AND HOME, which is unequaled for variety and excellence. Prominent among its many departments may be mentioned the—

Farm and Garden	The Apiary	The Poultry Yard
Market Reports	Talks with a Lawyer	The Question Box
Fruit Culture	Around the Globe	Plants and Flowers
Plans and Inventions	Live Stock and Dairy	The Veterinary
Fashions and Fancy Work		Household Features

FARM AND HOME is published **semi-monthly,** thus giving you **24 numbers a year,** the whole making a volume of **over 500 pages,** teeming with all the latest and most reliable information that experience and science can supply. No better proof of its popularity can be offered than its enormous circulation, which extends into every state, each number being read by no less than **a million readers.**

By special arrangement we make for a limited time the following liberal offer:

Farm-Poultry,	one year, $1.00	All For ONLY $1.00
Farm and Home,	" " .50	
Homemade Contrivances	.50	
	Total, $2.00	

Homemade Contrivances is a wonderfully useful book. It is adapted to the farm and garden, dairy and workshop, and to indoors as well as out. It covers the whole range of farm conveniences, farm appliances and fences, gates and bridges—in fact, is a combination, under one cover, of three separate books. It tells how to make over 1000 handy appliances and labor saving devices. It should be in the hands of every forehanded man. This book has never before sold in the trade for less than $2.00, which is the price of the regular cloth edition. We are able to make this unparalleled offer by printing an enormous edition for popular distribution. It is handsomely bound, illuminated covers. 5 1-2 by 7 1-2 inches, and contains no less than 650 pages and 750 illustrations.

Do not delay or fail to take advantage of this great offer, for never before was so much offered for so small a sum. Remember we send both papers one year including book, all postpaid, at the very low price above named.

Address all orders to

FARM-POULTRY PUBLISHING CO., Boston, Mass.

SHOW DATES.

New England States.

Dec. 4—7. *Malden, Mass. A. W. Roberts, Sec'y.
Dec. 4—7. *Amesbury, Mass. M. H. Sands, Sec'y.
Dec. 4—7 *Nashua, N. H. E. T. Gibson, Sec'y.
Dec. 4—7. *Wakefield, R. I. G. L. Kent, Pres.
Dec. 4—7. *Clinton, Mass. E. J. Harris, Sec'y.
Dec. 5—7. *Hartford, Conn. H. R. Hayden, E. Hartford, Conn., Sec'y.
Dec. 10—15. *Haverhill, Mass. Geo. I. Davis, Sec'y.
Dec. 11—12. Greenfield, Mass. F. E. Marsh, Sec'y.
Dec. 11—13. *Milford, Mass. W. H. Pyne, Sec'y.
Dec. 11—14. Bristol, Conn. E. B. Hubbell, Sec'y.
Dec. 12—15. Westerly, R. I. Rhode Island State Show. H. S. Babcock, Providence, R. I., Sec'y.
Dec. 12—15. *Manchester, N. H. W. B. Sanford, S'y.
Dec. 17—21. New Bedford, Mass. Geo. A. Munson, Sec'y.
Dec. 18—21. *South Framingham, Mass. W. A. Mandell, Sec'y.
Dec. 18—22. *Fitchburg, Mass. W. E. Bennett, Sec'y.
Dec. 20—22. *Adams, Mass. Harry W. Ford, Sec'y.
Dec. 26—28. *Barre, Vt. A. M. Smith, Sec'y.
Jan. 1—3. Lenox, Mass. L. H. Peters, Sec'y.
Jan. 1—3. *Wallingford, Conn. H. Haywood, Sec'y.
Jan. 1—3. Athol, Mass. J. E. Burt, Sec'y.
Jan. 1—4. *Woodstock, Vt. John S. Eaton, Sec'y.
Jan. 1—4. *Lynn, Mass. Chas. E. Hunt, Sec'y.
Jan. 1—4. *Beverly, Mass. Arthur Elliott, Peabody, Mass., Sec'y.
Jan. 8—10. *Milford, N. H. John A. Twiss, Sec'y.
Jan. 15—19. *Boston, Mass. A. R. Sharp, Taunton, Mass., Ass't Sec'y.
Jan. 22—24. *West Brookfield, Mass. E. L. Richardson, Sec'y.

Middle States.

Dec. 4—8. *Erie, Pa. A. E. Blethen, Sec'y.
Dec. 5—8. Johnstown, N. Y. H. S. Wemple, Sec'y.
Dec. 10—14. Meadville, Pa. H. L. Lamb, Cambridge Springs, Pa., Sec'y.
Dec. 11—15. *Philadelphia, Pa. Jos. Baird, Ass't S'y.
Dec. 12—15. Amsterdam, N. Y. Wm. Phillips, Jr., Sec'y.
Dec. 12—18. *Jamestown, N. Y. Dr. J. W. Morris, S'y.
Dec. 18—22. Cortland, N. Y. Dr. E. M. Santee, Sec'y.
Dec. 19—22. *Reading, Pa. Clifford F. Klees, Sec'y.
Dec. 19—22. *Troy, N. Y. Fred H. Waterman, Sec'y.
Dec. 24—29. *Matteawan, N. Y. Hector Milspaugh, Walden, N. Y., Sec'y.
Dec. 26—29. Rome, N. Y. E. F. Boyson, Sec'y.
Jan. 1—5. *Orange, N. J. Fanciers' Association of N. J. F. R. Moeller, 68 Freeman St., Newark, N. J., Sec'y.
Jan. 2—5. West Chester, Pa. Fred D. Reid, Sec'y.
Jan. 8—12. *Warren, Pa. J. H. Bowden, Sec'y.
Jan. 10—17. Rochester, N. Y. John Dreschler, Sec'y.
Jan. 23—26. *New York. H. V. Crawford, Montclair, N. J., Sec'y.
Feb. 18—23. Pittsburg, Pa. Jos. C. Moore, 1006 Penn. Ave., Sec'y.

Near West States.

Dec. 3—7. *Galva, Ill. F. E. Olson, Sec'y.
Dec. 3—8. *Wooster, O. W. A. Lott, Sec'y.
Dec. 4—6. Owosso, Mich. A. J. Bertrand, Sec'y.
Dec. 4—6. O'Fallon, Ill. Chas. Tiedemann, Sec'y.
Dec. 4—7. Mt. Pulaski, Ill. W. J. Lincoln, Sec'y.
Dec. 4—7. West Mansfield, O. G. F. Plotner, Sec'y.
Dec. 4—7. *Battle Creek, Mich. Geo. S. Barnes, S'y.
Dec. 4—7. *Goshen, Ind. J. A. Babcock, Sec'y.
Dec. 4—9. *Miamisburg, O. S. B. Groby, Sec'y.
Dec. 5—11. Cincinnati, O. J. B. Rommebaum, Sec'y.
Dec. 5—12. Logansport, Ind. Sol. D. Brandt, Sec'y.
Dec. 6—12. *Aurora, Ill. W. M. Smith, Sec'y.
Dec. 10—12. Jacksonville, Ill. Chas. Reynolds, Sec'y.
Dec. 10—14. Davenport, Ia.
Dec. 10—14. *Lansing, Mich. Chas. H. Crane, Sec'y.
Dec. 10—14. Princeton, Ill. D. O. Barto, Sec'y.
Dec. 10—15. Indianapolis, Ind. J. C. Tarkington, S'y.
Dec. 11—14. Belleville, Ill. W. C. Eckert, Sec'y.
Dec. 17—21. *St. Clairsville, O. J. W. Riley, Sec'y.
Dec. 17—21. La Crosse, Wis. E. H. Hoffman, Sec'y.
Dec. 17—22. Evansville, Ind.
Dec. 17—22. Frankfort, Ind. Henry Wolf, Sec'y.
Dec. 17—21. Poseyville, Ind. C. V. Emerson, Sec'y.
Dec. 18—21. *Wellington, O. C. L. Warren, Sec'y.
Dec. 18—21. *Upper Sandusky, O. Fred H. Inman, Sec'y.
Dec. 19—21. Homer, Ill. Geo. Ahler, Sec'y.
Dec. 22—26. *Toledo, O. Geo. F. Mueller, Sec'y.
Dec. 24—27. *Elgin, Ill. H. E. Denison, Sec'y.
Dec. 24—28. Middletown, O. E. C. Paine, Sec'y.
Dec. 24—28. Kalamazoo, Mich. J. S. Carr, Sec'y.
Dec. 24—29. Greencastle, Ind. Rus F. Matson, Sec'y.
Dec. 24—29. Macomb, Ill. William I. Knowles, Sec'y.
Dec. 24—30. *Lebanon, Ind. C. B. Adair, Sec'y.
Dec. 25—26. *Greenville, Mich. John J. Wagner, S'y.
Dec. 26—29. *Ridgeville, Ind. S. E. Frazee, Sec'y.
Dec. 26—29. Sycamore, O. E. R. Williams, Sec'y.
Dec. 31—Jan. 5. Joliet, Ill. Thos. B. Suplee, Jr., S'y.
Jan. 1—3. Port Huron, Mich. J. Stewart Crawford, Sec'y.
Jan. 1—4. Henry, Ill. W. G. Griffith, Sec'y.
Jan. 1—4. *Lanark, Ill. E. D. Leland, Sec'y.
Jan. 1—4. Canton, O. Wm. Friedmann, Sec'y.
Jan. 1—4. Ypsilanti, Mich. L. M. Olds, Sec'y.
Jan. 1—5. *Van Wert, O. C. E. Detter, Sec'y.
Jan. 1—5. Chilton, Wis. G. N. Kersten, Pres.
Jan. 1—5. Danville, Ill. A. L. Rice, Sec'y.
Jan. 1—5. Columbia City, Ind. E. Carver, Sec'y.
Jan. 1—5. *Hamilton, O. C. W. Rudolph, Sec'y.
Jan. 3—8. *Carey, O. J. L. Yoke, Sec'y.
Jan. 7—12. *Rockford, Ill. B. R. Lucas, Belvidere, Ill., Sec'y.
Jan. 7—12. *Detroit, Mich. Michigan State Show. John A. Grover, Concord, Mich., Sec'y.
Jan. 7—12. Bloomington, Ill. Illinois State Show. C. E. Ellsworth, Danville, Ill., Sec'y.
Jan. 8—11. E. Palestine, O. Harry G. Paxson, Sec'y.
Jan. 8—12. *Bloomingburg, O. W. F. Jefferson, Sec'y.
Jan. 8—13. Cleveland, O. F. R. Hunt, Sec'y.
Jan. 9—12. *Canton, Ill. H. F. Randolph, Sec'y.
Jan. 9—14. Dayton, O. Tuco. Faulstick, Sec'y.
Jan. 14—17. Whitewater, Wis.
Jan. 15—19. Oshkosh, Wis. Wisconsin State Show. Earl L. Heath, Sec'y.
Jan. 15—20. Peru, Ill. Hy Hopper, Sec'y.
Jan. 21—26. *Chicago, Ill. Fred L. Kimmey, Evanston, Ill., Sec'y.
Jan. 21—26. *Saginaw, Mich. Louis Bauman, Sec'y.
Jan. 22—26. *Brodhead, Wis. W. H. Clarke, Sec'y.
Jan. 24—26. Cambridge, O. J. C. Sarchet, Sec'y.
Jan. 29—Feb. 3. Painesville, O. H. Z. Brainard, S'y.
Jan. 30—Feb. 2. Marysville, O. M. L. Myers, Sec'y.
——— *Ohio State Show. Chas. McClave, New London, O., Sec'y.

Central West States.

Dec. 3—7. *Kirksville, Mo. F. M. Buckingham, Sec'y.
Dec. 3—7. *Braymer, Mo. R. V. Glenn, Kingston, Mo., Sec'y.
Dec. 3—8. *Newton, Kans. C. W. Glover, Sec'y.
Dec. 10—14. Fayette, Mo. E. E. Codding, Sedalia, Mo., Pres.
Dec. 10—14. Davenport, Ia. A. L. Petersen, Sec'y.
Dec. 11—14. Mason City, Ia. S. V. Johns, Sec'y.
Dec. 11—14. David City, Nebr. Joseph Kay, Sec'y.
Dec. 12—16. Nashua, Ia.
Dec. 14—15. North Bend, Nebr. Thos. Fowler, Sec'y.
Dec. 17—20. Leavenworth, Kans. E. S. Sluger, S'y.
Dec. 17—22. Dubuque, Ia. C. H. Gregoire, Sec'y.
Dec. 18—20. *Laverne, Minn. N. R. Reynolds, Sec'y.
Dec. 18—21. McPherson, Kans. O. L. Toby, Sec'y
Dec. 18—22. Iowa City, Ia. B. A. Wickham, Sec'y.
Dec. 19—22. Aurelia, Ia. H. B. Green, Sec'y.
Dec. 24—27. *Garner, Ia. H. E. Watts, Sec'y.
Dec. 26—29. *Williamsburg, Ia. W. R. Long, Sec'y.
Dec. 26—29. Delphos, Kans. T. R. Cleudennin, Sec'y.
Jan. 1—5. *Waterloo, Ia. C. A. Hollis, Sec'y.
Jan. 1—5. *Salina, Kans. L. D. Arnold, Sec'y.
Jan. 2—5. Marshalltown, Ia. H. C. Hansen, Sec'y.
Jan. 7—8. *Blair, Nebr. Herman Aye, Sec'y.
Jan. 7—12. Topeka, Kans. Geo. H. Gillies, Sec'y.
Jan. 7—12. St. Louis, Mo. John A. Francisco, Sec'y.
Jan. 8—11. *Jefferson, Ia. P. O. Brown, Sec'y.
Jan. 14—16. Plainville, Kans. Wm. Mellott, Sec'y.
Jan. 14—19. *Cedar Rapids, Ia. E. E. Richards, Sec'y.
Jan. 15—19. Lincoln, Nebr. A. Lemen, Sec'y.
Jan. 16—19. Pratt, Kans. Chas. A. Sloan, Sec'y.
Jan. 16—22. Kansas City, Mo. Mr. C. T. Wortman, 512 Hall Bld'g, Sec'y.
Jan. 22—25. Sheldon, Ia. G. A. C. Clarke, Lemars, Ia., Sec'y.
Jan. 23—26. *Great Bend, Kans. J. H. Jennison, Sec'y.
Jan. 29—Feb. 2. Mitchell, S. D. C. C. Bras, Sec'y.
Jan. 29—Feb. 2. Atchison, Kans. W. A. Jackson, S'y.
Feb. 5—9. Winchester, Kans. J. L. Forsyth, Sec'y.
Feb. 6—12. *St. Paul, Minn. H. F. Hneister, Sec'y.
Feb. 11—14. Superior, Nebr. F. E. Fearing, Sec'y.
——— *Leavenworth, Kans. E. S. Sluger, S'y.

Far West States.

Dec. 31—Jan. 5. Tacoma, Wash.
Jan. 1—5. *Fort Collins, Colo. C. E. Lull, Sec'y.
Jan. 6—12. Spokane, Wash.
Jan. 7—12. Portland, Ore. Oregon State Poultry Association. F. Fenwick, 263 Yamhill St., Portland, Ore., Sec'y.
Jan. 14—18. Pueblo, Colo. J. I. Munsey, Sec'y.
Jan. 14—19. *Denver, Colo. W. C. Schuman, Sec'y.

Southern States.

Dec. 3—7. Galveston, Tex. J. J. Hanna, Sec'y.
Dec. 4—7. Monroe, N. C. R. L. Simmons, Shelby, N. C., Sec'y.
Dec. 5.—11. Little Rock, Ark. A. G. Russell, Sec'y.
Dec. 11—14. Fort Worth, Tex. J. E. Randall, Sec'y.
Dec. 12—19. Birmingham, Ala. D. J. Flummer, S'y.
Dec. 18—20. Weatherford, Tex. F. L. Marshall, S'y.
Dec. 18—21. Dallas, Tex. T. L. Lawhon, Sec'y.
Dec. 18—22. Texarkana, Tex. Heber Vaughan, S'y.
Jan. 7—11. Guthrie, Okla. L. F. Laverty, Sec'y.
Jan. 7—12. Memphis, Tenn. G. A. Scyforth, Sec'y.
Jan. 14—19. Louisville, Ky. Chas. A. Hess, Sec'y.
Jan. 15—18. Charlotte, N. C. W. C. Timmons, Sec'y.
Jan. 16—19. *Blackwell, Okla. Geo. M. Carson, Sec'y.
Jan. 21—23. Hennesey, Okla. W. T. Parnall, Sec'y.
Jan. 23—26. Kingfisher, Okla. H. F. Stephenson, S'y.
Feb. 15—20. New Orleans, La. A. Maginzky, 5321 Camp St., Sec'y.

Canada.

Jan. 16—21. *Montreal. Jas. P. Cullen, Sec'y, 214 St. James St.

*List of awards will be published in FARM-POULTRY.

N. B. Show secretaries are requested to notify us promptly of any errors or omissions discovered in our list of shows to occur.

The Bristol Show.

The Bristol Poultry Association, Bristol, Conn., will hold their fourth annual exhibition Dec. 11—14, 1900. At our show last season we had about 1400 entries from the leading breeders of this section. A very large exhibit of the very highest class of poultry is assured for this year. Our entry fee is 25c. per bird—1st prize being $1; 2d, 50c. Coops will be furnished free of charge; also attention to birds.

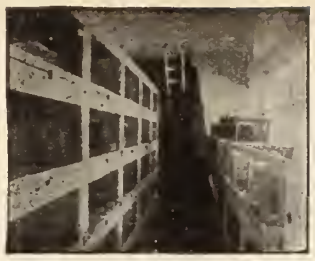
Belgian hare breeders are invited to exhibit with us, and although we are offering no prizes this year, a good field for business is open, as in this section the interest in these animals is rapidly increasing.

Our show is to be first class in every particular; in fact, second to none in New England. If you, breeders, come with your specimens, you will receive a very cordial welcome; your birds will receive the same warm reception, and a competition in which they will need their very strong points to win. It will pay you to come.

Send for catalogue to

Bristol, Conn. E. B. HUBBELL, Sec'y.

A little success sometimes brings a big failure; a little failure often brings a big success. —*Printers' Ink.*



Big Money in Belgian Hares

The raising of Belgian hares is rapidly becoming an established industry. The cost of raising is trifling, the demand is good, and selling prices are high. We have stock of all grades, from market stock to fancy, imported stock, for sale at various prices according to the age and grade. Information gladly furnished. Correspondence solicited. Mention this paper.

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209 Marion Street, Elkhart, Indiana.
LOUIS M. SIMPSON, Proprietor.

200-Egg Incubator for $12.

The simplicity of the Stahl incubators created a demand that forced the production to such great proportions it is now possible to offer a first-class 200-egg incubator for $12. This **new** incubator is an enlargement of the famous

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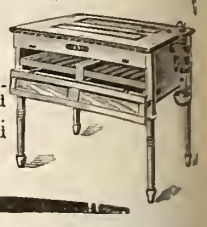

recognized the most perfect small hatcher. This **new** incubator is thoroughly well made; is a marvel of simplicity, and so perfect in its working that it hatches every fertile egg. Write for anything you want to know about incubators. Send for the new **free** illustrated catalogue.

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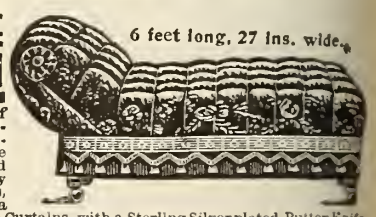
FREE A HANDSOME COUCH



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MAKES HENS LAY MORE EGGS

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